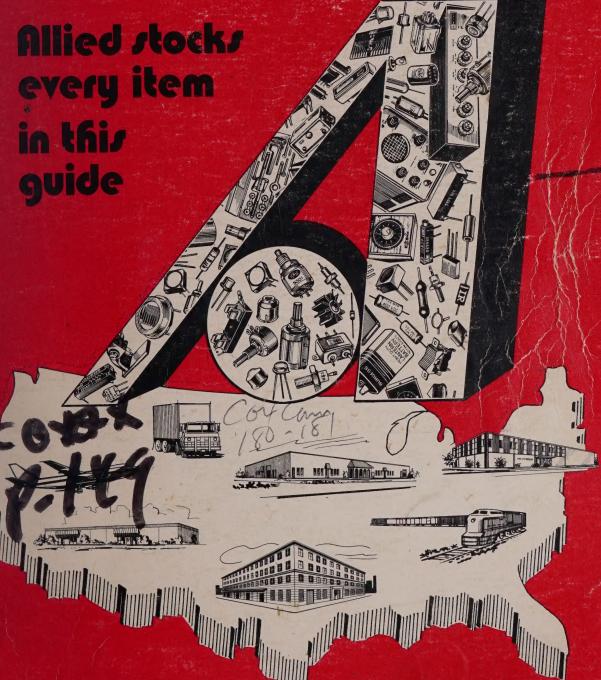
PRICE \$5.00

ALLIED ELECTRONICS

A DIVISION OF TANDY

Allied stocks every item in this guide



1975 ENGINEERING MANUAL & PURCHASING GUIDE No. 750 SEE PAGE 3 FOR ADDRESSES

SOLID STATE DEVICES

SOLID STATE SOCKETS. PC BOARDS, ACCESS.

LIGHT DEVICES

PILOT LIGHTS

TUBES, READOUTS AND SOCKETS

RESISTORS, POTS AND CONTROLS

CAPACITORS

SWITCHES, CIRCUIT BREAKERS, FUSES.

WIRE, CABLE, AND ACCESSORIES

10 CONNECTORS

RELAYS AND 11

12 COUNTERS AND TIMERS

COILS

13

14

15

18

19

TRANSFORMERS, POWER SUPPLIES

PANEL METERS

FANS, BLOWERS AND MOTORS

16

TEST EQUIPMENT

RACKS, CABINETS AND HARDWARE

TOOLS AND SHOP

PA, AUDIO 20

MISCELLANEOUS FEATURE VALUES

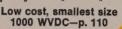
21

COMPLETE INDEX,

ALLIED COMPONENTS...

CERAMIC CAPACITORS







Toggle, p. 130; Rocker, p. 138; Foot, p. 137

RELAYS



ASD Frame, p. 196; General Purpose, p. 199

Here's Why Our Own Quality Components are Your BEST BUY

QUALITY

Made for us by the foremost manufacturers in the industry.

Meet all the specifications of standard types costing much more.

SELECTION

Specially selected lines that are in high demand by customers. Our huge stocking facilities enable us to fill all your needs.

PRICES

Our pricing policies give you lowest OEM prices available.
You pay no more than when you order direct from a manufacturer.

SERVICE

Allied's nationwide sales facilities, experienced personnel and modern communications network assure fast, personalized service.

COUNTERS



Manual and Electric types, p. 229

PANEL METERS



Complete Selection, pages 253, 257

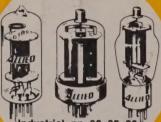
MINIATURE ELECTROLYTICS





Radial and Axial leads, p. 119

TUBES



Industrial, pp. 82, 85, 86 Receiving, pp. 83, 84

TRANSFORMERS



For every application, pp. 233-236, 238-240, 242

ALLIED PRODUCT INDEX

AC Adapter	Coaxial	Jacks						18
Binding Pos	ts						• •	18
Books			•	• •		2		24
Bumpers, Gr	ommete		• •			LZ	٠,	200
Cabinote III	ilitu	****						Z
Cabinets, U	miny						٠.	31
Cable Clips	221 221 23							15
Capacitors,	Air Varis	able .						11
Capacitors,	Ceramic	Disc						110
Capacitors,	Electroly	tic						111
Capacitors,	Mylar .							11
Chart Record	ders and	Paner					* *	27
Connectors,	Envison	mater	^	• •	•			40
Cords, Powe	r and E	vienel	-	* .	* *			10.
Column Lone	I WINE	AIUISI	711					14

Fuses, Instrument		143
Hardware	298-	300
Lamps, Adjustable		317
Lugs, Solder		299
Meter Plugs		192
Metric Converter		308
Outlet Boxes		312
Panel Meters	253.	257
PC Board Holders		63
PC Instrument Transformers		252
Pliers, Cutters, Scissors	309.	310
Plugs and Jacks		
Banana		192

Phone															18
Phono		٠.											į.		186
Test															
Tip	Ta	De	8	c			n it			٠	• •	٠	٠	• •	34
Relays, E	lect	roi	me	ci	a	ai	Ca	ı				1	91	6.	198
Relays, R	eed				٠.									ď,	210
Relay Soc Resistor I	Ret	8	he.	i		•		• •	٠	٠		٠	٠.	• •	218
Resistors,	Ca	rbo	חכ	Fi	in	Ü		* *		•	• •	*	•	•	89
Solder		٠.		٠.									į.		307
Solder Di	spe	ns	er												304

Switches, Environmate® Sealed142

witches, Ribbon and Foot	. 137
witches, Rocker and Lever	.138
witches, Subminiature Toggle	.130
est Table, Mobile	.316
Audio233	220
Chokes	230
Control and Isolation	242
Filament	234
Intercom, Transceiver	236
Power	240
ubing & Shrinkable Tubing 158	159
ubes, Industrial82, 85	5, 86
ubes, Receiving8	3, 84

ALLIED'S NATIONWIDE SERVICE ASSURES YOU PROMPT SHIPMENT OF ALL YOUR ELECTRONIC NEEDS



COAST-TO-COAST FACILITIES READY TO SERVE YOU

- * GARDEN GROVE, CALIFORNIA 12311 Industry Street Garden Grove California 92641 (213) 598-8671, (714) 894-7581 TELEX: 68-5534, 65-5465
 - POCATELLO, IDAHO Kimball Electronics 504 East Center Pocatello, Idaho 83701 (208) 232-2201
 - **ASSOCIATE DISTRIBUTORS**
- ★ ELGIN, ILLINOIS (Chicago Area) 1355 Sleepy Hollow Road Elgin, Illinois 60120 (312) 697-8200 TELEX: 72-2465, 72-2466
- BOISE, IDAHO
 Kimball Electronics
 418 N. Orchard Ave.
 Boise, Idaho 83704
 (208) 342-3559
- BOSTON, MASS.
 One Century Circle
 Campanelli Industrial Park
 Braintree, Mass. 02184
 (617) 848-4150
 TELEX: 94-0650
- DAVENPORT, IOWA Warren Radio Co. 1205 East River Drive Davenport, Iowa 52802 (319) 323-8051
- FORT WORTH, TEXAS
 401 E. 8th Street
 Fort Worth, Texas 76102
 (817) 336-5401
 TELEX: 75-8314
- SALT LAKE CITY, UTAH Kimball Electronics 350 Pierpont Avenue Salt Lake City, Utah 84101 (801) 328-2075

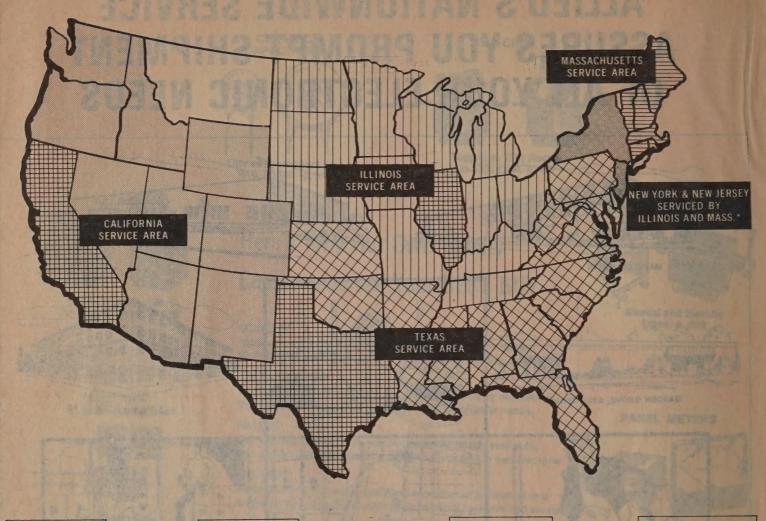
- * MAJOR STOCKING AREAS
- SALES BRANCH WITH INVENTORY

ALLIED ELECTRONICS

A DIVISION OF TANDY CORPORATION

CALL YOUR NEAREST ALLIED NUMBER TOLL-FREE

(For Local Telephone Numbers See Listing Below)



CALIFORNIA SERVICE AREA

800-472-2471

California State

800-854-2421

Arizona Colorado Idaho Nevada **New Mexico** Oregon Utah Washington Wyoming

ILLINOIS

800-942-7863 **Illinois State**

800-323-5450

Nebraska New Jersey*

New York* N. Dakota S. Dakota

SERVICE AREA

800-323-5240

Indiana lowa Kentucky Michigan Minnesota

Missouri Ohio Tennessee Wisconsin

TEXAS SERVICE AREA

800-792-8760

Texas State

800-433-2890

Alabama Arkansas Delaware Florida Georgia

Kansas

800-433-2890

Louisiana Maryland Mississippi N. Carolina

S. Carolina Oklahoma Pennsylvania Virginia W. Virginia Washington D.C. **MASSACHUSETTS** SERVICE AREA

800-225-1890

Connecticut Maine Massachusetts **New Hampshire** New Jersey* New York* Rhode Island Vermont

*Residents of New York and New Jersey may call either the Illinois Service Area (800-323-5450) or the Massachusetts Service Area (800-225-1890)

LOCAL TELEPHONE NUMBERS

- ★ Garden Grove, California (213) 598-8671, (714) 894-7581 TELEX: 68-5534, 65-5465
 - Pocatello, Idaho Kimball Electronics (208) 232-2201

- ★ Elgin, Illinois (312) 697-8200 TELEX: 72-2465, 72-2466
- Boise, Idaho Kimball Electronics (208) 342-3559

- Boston, Massachusetts (617) 848-4150 TELEX: 94-0650
- Davenport, Iowa Warren Radio Co. *(319) 323-8051

- ★ Fort Worth, Texas (817) 336-5401 TELEX: 75-8314
- Salt Lake City, Utah Kimball Electronics (801) 328-2075
- SALES BRANCH WITH INVENTORY

- M ASSOCIATE DISTRIBUTORS
- * MAJOR STOCKING AREAS

INDEX OF SEMICONDUCTORS

AND DESCRIPTION OF THE PARTY AND PAR			
Chicago Miniature Lamp Works	Opto Electronic Components28, 29	Bridge Rectifiers44	Yellow Springs Instruments
Light Emitting Diodes29	Zeners See Discrete Directory 8	Diodes44	Thermistors
Electronics Control Corp.	Fenwal	Rectifiers44	Discrete Devices Directory 8
Silicon Controlled Rectifiers43	Thermistors	Zeners44	Discrete Devices Cross Reference 5
Triacs43	International Rectifier	Spectronics	Integrated Circuit Directory16
Fairchild	Diodes38, 39	Opto Electronic Components27	Integrated Circuit Cross Directory6, 7
C-MOS35	Rectifiers	Sprague	Light Emitting Diode Cross Reference. 5
Diodes See Discrete Directory 8	Transistors	Transistors37	Solid State Devices Case Drawings 20-26
Integrated Circuits30-34	Zeners38	Varo	
Optimos35	Sarkes Tarzian	High Voltage Rectifiers40	
Transistors36	Avalanche Silicon Rectifiers44	Bridge Rectifiers41	
Astrona Common To Tale Common To Tal			

LED CROSS REFERENCE

Chicago Miniature	Dialight	Fairchild	Lamps Inc. (Oak Industries)	Litronix	Monsanto	Motorola	National
CM-20, 21, 22		FLV161	LA6502 LA6504	RL2102 RL2104 RL-20 RL-21 RL5054-1	MV5020 MV5022	age to	NSL5020 NSL5022
CM4-23, 83		FLV160	LA6501 LA6503	RL4403 RL4440 RL4850 RL-21	MV5021 MV5023 MV5024 MV5026	MLED650 MLED655	NSL5023 NSL5024 NSL5026
CM4-31 CM4-43 CM4-50		FLV103, 141 FLV102, 106		RL209 RL50	MV5010 MV5012 MV5074 MV50	MLED509 MLED50	
CM4-53 CM4-73	521-9165 521-9166	FLV110, 117 FLV112	LA6001 LA6003	RL50-01 RL54 RL-2 RL203	MV54 MV5033	MLED55 MLED600	
	520-9190	FLV111 FLV150	LA6003 LA6002 LA6401 LA6403	RL203 RL202 RL-2003 RL-20	MV5030 MV5053 MV5055	MLED600 MLED640	30.20
	The Person	FLV151	LA6402 LA6404	RL2002 RL2004	MV5056 MV5054-1	MLED650 MLED655 MLED660	

CROSS-REFERENCE FOR SILICON CONTROLLED RECTIFIERS

IR	-	Equivalent Typ	es	IR IR	Equival	ent Types	IR	Equivalent	Types
Type No.	GE	Westinghouse	Motorola	Type No.	GE	Westinghouse	Type No.	GE	Westinghouse
IR30	C30	A	MCR2935*	40RCS	C145		151RB	C178	261
IR31 IR32	C31 C32	7 41.4 01 0	MCR2835*	51RCG 52RCG		2192, 2191* 2192, 2191:	151RC 151RF	C80 C185	2181, 7604, 2182
IR33	C33	T. Frank	WICK2035"	71RA	ciśo	254, 250	175PA	0103	273
IR106	C106	****	MCR106	71RB, 72RB	C151, C153	T100-X70, 212, 809	175RA		220, 260
IR122	C122		2N4441-2N4444	71RC-A	C50		250PA	C380	
IR140 IR141	C140 C141			71RCG	C154, C155, C55 C182	2542*, 2541* 254, 250	250PF 250RA	C385 C280	T264 221
5RC-A	C10, C11	207-202	Special Specia	72RA 72RC-A	C52	T100-X70, 212, 809	300PA	6200	272
10RC	C36, C20	T400-10		72RCG	C157, C56, C156	2542*, 2541*	300RA, 303RA	C290, C291	224, 270
10RC-A 16RC-A	C37, C137 C35, C135	203 T400—16 201 T400—22		81RLA 81RLB	C158	T507, T502	304RA 350RA		276, 223, 222, 286
		201 1400—22	1		0130	1307, 1302	420PA	****	283
22RC 36RC	C38	251*. 219	Dinsant F	82RLA 82RLB	Ċ159	T507, T502	420PM	C387*, C388*, C395*,	T-727
36RC-A	C46	211	THE RESIDENCE	115PA	C350	227, 252, 263	100	C506*, C508*, C396*,	ALTO COLOR
37RC 37RC-A	C45	251* 209		115PCG 151RA	C355* C180	29 Hrits	470PA	C510*, C398*, C399*	282
O/NO-N	045	203		TOTILA	0100		77017	0301	200

^{*}Write for information on major differences in specifications.

CROSS-REFERENCE FOR SINGLE PHASE, FULL-WAVE BRIDGE ASSEMBLIES

						A STREET, STREET, SQUARE, SQUA			STATE OF THE PARTY AND ADDRESS.		CONTRACTOR OF THE PARTY OF THE				
Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian	Motorola	Tarzian
MDA920-1	\$5959	MDA940-1	S6337N-1	MDA942-3	\$5959	MDA942A-4	B1B4	MDA952-1		MDA980-3		MDA990-4	\$6314-4	MDA1591-2	
MDA920-2		MDA940-2		MDA942-4	\$5959-1	MDA942A-5		MDA952-2		MDA980-4		MDA990-5	S6314-4	MDA1591-3	
MDA920-3		MDA940-3		MDA942-5	S5959-1	MDA950-1	S6337P-1	MDA952-3		MDA980-5		MDA990-6	S6314-6	MDA1591-4	
MDA920-4			S6337N-2		S5959-2	MDA950-2	S6337P-1	MDA952-4		MDA980-6		MDA1491-1		MDA1591-5	
MDA920-5			S6337N-6	MDA942A-1		MDA950-3	S6337P-1	MDA952-5		MDA990-1		MDA1491-2 MDA1491-3		MDA1591-6	XP329-6
MDA920-6		MDA942-1	\$5959	MDA942A-2		MDA950-4	S6337P-2	MDA980-1 MDA980-2		MDA990-2 MDA990-3		MDA1491-3		100	
MDA920-7	22923-5	MDA942-2	22323	MDA942A-3	DIDS	MDA950-7	S6637P-6	MIDASOU-Z	20250-1	MIDA 990-3	30314-2	MDWIDAI-I	VL 272.1		Mile Desired

CROSS REFERENCE FROM RCA TO IR

CROSS REFERENCE OF FAIRCHILD TO EQUIVALENT	DEVICES
--	---------

RCA	IR	RCA	IR	RCA	IR	RCA	IR	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	Equiv.	Fairchild	
SK3010	TRO8	SK3029	IRTR61	SK3117	IRTR70	SK3013	TRO1	MPS4354	2N4354	MT 5766	2N5766	PN 2221A	2N221A	PN 2907A	2N2907A	PN 3641	2N3641	PN 4249		PN 4916		PN 5136	
SK3011		SK3038	TR21	SK3122		SK3014						PN 2222						PN 4250				PN 5137	
SK3018	IRTR95			SK3003								PN 2222A										PN 5138	
SK3019	IRTR80						IRTR88	MT 5481	2N5481	PN 1613	2N1613	PN 2484	2N2484	PN 3251	2N3251	PN 3644	2N3644	PN 4257				PN 5139	
SK3020		SK3041						MT 5482	2N5482	PN 1711	2N1711	PN 2904	2N2904	PN 3251A	2N3251A	PN 3645	2N3645	PN 4257A				PN 5140	
		SK3046										PN 2904A										PN 5141	
		SK3047		SK3007				MT 5595	2N5595	PN 2218	2N2218	PN 2905	2N2905	PN 3565	2N3565	PN 3689	2N3689	PN 4258A		PN 5131		PN 5142 PN 5143	
SK3026		SK3079						MT 5596	2N5596	PN 2218A	2N2218A	PN 2905A	2N29U5A	PN 3566	2N3566	PN 3690	ZN3690	PN 4357				PM 5143	ZN3143
. SK3027	IRTR61	SK3111		SK3009		SK3114	IR19	M1 5763	2N4429	PN 2219	2N2219	PN 2906A	2N2906	PN 356/	2N3567	PN 3691	2113091	PN 4358		PN 5133		THE PARTY OF	
SK3028	TR23	SK3115	IRTR93	SK3012	1803	SK3118 SK3124	TRIR/3	MI 5/64	2N5/64	PN 2219A	2N2219A	PU 2906A PU 2907	2N2906A	PN 3560	2N3560	DN 4248	2113092	PN 4000	204880	DN 5135	2N5134	OF FREE	
251	The same of the		1013		1-00	SM3124	IKZI	M1 2/62	CIND/05	LIN CTTT	2182221	ru 2907	2142901	LI4 2203	2113309	F14 4240	2114240	111 4009	1 2144003	LM 2122	5112122	And the latest the lat	

JEDEC TO TARZIAN CROSS REFERENCE | 10,253 | 20,493 | 10,4416 | 200 | 10,560 | 800 | 10,1083 | 30M | 10,11264 | 40,0139 | 10,111954 | 5,14409 | 10,13474 | 60,139 | 10,1587 | 5,12609 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,1711 | 400 | 10,171

_			LILETER		111000		1144000	0.0111	111272011	101101			1		No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other pa			7000	Contract of the							1	4
	IN254	20HP3	IN442B	40C	IN561	100C	IN1084	40M	IN1127A				IN1348A				IN1712			ST3A60P			IN3573		IN4002		
-	IN255	40HP3	IN443B	40C	IN562	80H3P	IN1085A	10LA	IN1128A	60H3P	IN1196A	ST440P	IN1487				IN1763		IN2482		IN2863		IN3615		IN4003		
	IN256	60HP3	IN444B	60C	INSS9A	10C	IN1086A	20LA	IN1169A	40C	IN1197	ST3A60P	IN1488		IN1614A	20H3P	IN1764	60C	IN2483	F4	IN2864	60C	IN3616	ST220P	IN4004	E4	
	IN332	40HP3	IN445B	60C	IN600A	10C	IN1088A	40LA	IN1183A	ST420P	IN1197A	ST460P	IN1489	40C	IN1615A	40H3P	IN2069A	F2	IN2484				IN3617	ST220P	IN4005	E6	
	IN333	40HP3	IN532		INGOIA		IN1095	60C	IN1184A	CTAROD	INITIOO .	CTOACOD	IN 1490	400	IN1616A		IN2070A	F4	IN2485	20C	IN3209	ST3A20P	IN3618	ST220P	IN4006	E8	
	IN334	60HP3	IN533		IN602A		IN1096		IN1185A						IN1692		IN2071A	F6	IN2486	40C	IN3210	ST3A20P	IN3619	ST240P	IN4007	E10	
	IN335	60HP3	1N534	60C	IN603A		IN1100		IN1186A	ST420P	UN1199A	ST220P	11147-125	000	IN1693		IN2103	10C	IN2487	40C	IN3211	ST3A40P	IN3620	ST240P	IN4136	ST1120P	
			IN535		IN604A		IN1101		IN1187A	ST440P	IN1200A	ST220P	IN1537 IN1538	20H3P	IN1694	400	IN2104	10C	IN2488	60C	IN3212	ST3A40P	IN3621	ST260P	IN4137	ST1140P	
			IN536		IN605A		IN1102	400	IN1188A	ST440P	IN1201A	ST220P	IN1538	20432	IN1695	400	IN2105	200	IN2489	60C	IN3213	ST3A60P	IN3622	ST260P	IN4138	ST1160P	
			IN537		IN606A		IN1103	400	IN1189A	ST460P	HN1202A	ST220P	INIDJ9	201130	1111690	600	IN2106	40C	IN2610	10C	IN3214	ST3A60P	IN3736	ST920P	IN4587	ST1620P	
	IN339	20HP3	IN538				IN1104	600	IN1190A	ST460P	IN1203A	ST240P	IN1541	40H3P	IN1701	100	IN2107	40C	IN2611	200	IN3289	ST1620P	IN3737	ST940P	IN4588	ST1620P	
	IN340	20HP3	IN539				IN1105	600	IN1191	ST3A20P	IN1204A	ST240P	IN1542	40H3P	IN1702	100	IN2108	60C	IN2612	40C	IN3290	ST1640P	IN3738	ST940P	IN4589	ST1640P	
	IN341	40HP3	IN540	40C			IN1115		IN1191A								IN2131	ST1120P	IN2 613	40C	IN3291	ST1640P	IN3739	ST960P	IN5402	3BF2	
	IN342	40HP3	IN547						IN1192								IN2135	ST1140P	IN2614	60C	IN3292	ST1660P	IN3740	ST960P	IN5403	3BF4	
			IN550						IN1192A								IN2138	ST1160P	IN2615	60C	IN3293	ST1660P	IN3741	ST980P	IN5404	3BF4	
									IN1193								IN2154	ST3A20P	IN2616	800	IN3294	ST1680P	IN3742	ST9100P	IN5405	3BF6	
									IN1193A								IN2155	ST3A20P	IN2617	100C	IN3295	ST16100P	IN3987	80H3P	IN5406	3BF6	
									IN1194								IN2156	ST3A20P	IN2858	10C	IN3569	20H3P	IN3988	80H3P	IN5408	3BF8	
					IN1081				IN1194A									ST3A20P			IN3570	20H3P	IN3989	100H3P	IN5409	3BF10	
-	IN440B				IN1082	20M	IN1125A	40H3P	IN1195	ST3A40P	IN1346A	40H3P	IN1586	ST260P	IN1710			ST3A40P			IN3571		IN3990		IN5410		
- 1		100	111000	001131	1141002	20191	MILLEDA	401131	1112233	0104401	THE TOTAL	101101	1111000	012001	111111111	1.00	1111111100	01011101	1112000			10000					£.

SOLID-STATE DEVICES

INDUSTRY TTL CROSS REFERENCE GUIDE

PIN FOR PIN REPLACEMENT. Function and pin configuration are identical, however some small differences in the electrical or mechanical specifications or method of test may exist.

ICRO DEVICES

PACKAGE CROSS REFERENCE

TEMPERATURE RANGE CROSS REFERENCE

			small	differ	ences in t
			D MICRO NUMBER FO		CES
AM	261	5	PROPERTY.	1 190	M
Mfr. I.D.	Devi Typ		Package Type		Temp. Range
		CRO	SS REFERE		
Packag	е	and the second	AMD)	Fairchild
Dual In-Line Dual In-Line Flatpak		U6E	E,F,G, U6N, U6M, A,B,C U4M, U31,	919	DPF
	RATURE		E CROSS R	100	NCE
Temper	ature Rang	je	AMD	F	airchild
COMMERC	IAI		STATE OF STREET		

Flatpak	U4L,	U4L, U4M, U31, M,N,P						
TEMPER	ATURE RANG	E CI	ROSS RE	FERE	NCE			
Temperate	ure Range	117	AMD	F	airchild			
COMMERCIA O°C to +	AL 70°C/75°C	С	, 59X	-	С			
-55°C to	+125°C	М	, 51X		M			
ITT SEMICONDUCTORS DEVICE ORDER NUMBER FORMAT								
MIC	9300	1100	Temp.		D			
Mfr. I.D.	Mfr. Device Type			P	ackage Type			
P	PACKAGE CROSS REFERENCE							
Paci	Package				airchild			
	Dual In-Line Ceramic Dual In-Line Plastic				D P F			
TEMPER	Flatpak B F TEMPERATURE RANGE CROSS REFERENCE							
Temperati	ure Range		ITT	F	airchild			
	COMMERCIAL O°C to +70°C/75°C				C			
	-55°C to +125°C				M			
DEV	MOTOROLA DEVICE ORDER NUMBER FORMAT							
MC	3	0	04	- may	L			
Mfr. I.D.	Ten		Device Type	P	ackage Type			

Packa	ge	Motorola	Fairchild
Dual In-Line C Dual In-Line F Flatpak		L _P F	D P F
TEMPERAT	URE RANG	GE CROSS REFI	ERENCE
Temperature Range	anjerne	Motorola	Fairchild
COMMERCIAL 0°C to +70 MILITARY		30,40,72,74,83	C
-55°C to -	-125°C	31,43,82,54,93	M
DEVIC		TIONAL NUMBER FORM	AT
DM	82	13	D
			Package Type
PAC	KAGE CR	OSS REFERENC	E Thinks become
Packa	ge	National	Fairchild
Dual In-Line C Dual In-Line F Flatpak		D N F	D P F
TEMPERAT	TURE RANG	GE CROSS REF	ERENCE
Temperature Range	Mary IN	National	Fairchild
	COMMERCIAL 0°C to +70 C/75°C		C
		The state of the s	The state of the s
-50°C to -	-125°C	7,54	M 5008
AUTO BEEN	PH	ILLIPS NUMBER FORM	
AUTO BEEN	PH	ILLIPS	100 mg 10

PACKAGE CROSS REFERENCE

MOTOROLA (Cont.)

4002(MCM)

9H53, 74H53 9H54, 74H54 9H55, 74H55 9H71, 74H71 9H72, 74H72

9H73,74H73

Package
Dual In-Line Ceramic
Dual In-Line Plastic
Flatpak

Philips

A, B

Fairchild

DP

NAT

Fairchild Pin for Pin Replacement

9N30, 7430 9N20, 7420 9N10, 7410

PHILIPS

Philips Type

FJH101 FJH111

	DEVICE ORDER NUMBER FORMAT								
N. T. ST	N	1	8252		В				
0.000	Temp.		evice	Package Type					
THE PERSON NAMED IN	Range	-	Гуре	110					
	Package		OSS REFERE		Fairchild				
Du	al In-Line Ce		E, F, Y		D				
Du	al In-Line Pla		A, B, N		P				
Fla	tpak		J, Q, P, R	-	F				
Dept.	The second secon	RE RAN	GE CROSS F	REFE	RENCE				
(3)	Temperature Range	19100	Signetic	8	Fairchild				
(MMERCIAL	/75°C	N		C				
MI	LITARY -55°C to +1	25°C	S	35	M				
GAN			NSTRUMENTS R NUMBER FORMAT						
LANGE OF	SN	54	195	3					
		Temp. Range	Device Type	Package Type					
1	PACK	AGE CR	ROSS REFERENCE						
S. ISL	Package		T.I.	Fairchild					
Du	al In-Line Ce al In-Line atpak	ramic	JAE		DPE				
FIG	STATE OF THE OWNER, TH	DE DAN	GE CROSS I	DEEL					
The state of	Temperature	HE NAN	GE CROSS I	TEP	ERENCE				
	Range	- Leven	T.I.	-	Fairchild				
3-1855 (MMERCIAL 0° to +70°C/	75°C	74, 75		C				
MI	LITARY —55°C to 十1	25°C	54, 55		M				
IONA	L (Cont.)		SIGI	NET	rics				
5	93434 8590 8601 8602	Fairchild Pin for Pin Replacement	Signetics Type						
4-4	1.91-0	Mary San	See	1	5400				

Fairchild

C

M

Philips

SIGNETICS

Temperature
Range
COMMERCIAL
0°C to +70 C/75°C
MILITARY
-55°C to +125°C

Replacement	Туре
93403	3101
9341	54181
9342	54182
9300	9300
93L00	93L00
9301	9301
93L01	93L01
9304	9304
9306 9308	9306 9308
93L08 9309	93L08 9309
93L09	93L09
9310	9310
93L10	93L10
9311	9311
93L11	93L11
9312	9312
93L12	93L12
9314	9314
93L14	93L14
9316	9316
93L16	93L16
9318 93L18	9318 93L18
9322	
93L22	9322 93L22
9324	9324
93L24	93L24
9328	9328
93L28	93L28
9338	9338
9340	9340
93L40	93L40
9341	9341
9342 9600	9342
9601	9600 9601
9602	9602
96L02	96L02
9614	9614
9620	9620
9621	9621
STATE OF STREET	BRUNE HORE
ш	A STATE OF THE
Fairchild	TITL States
Pin for Pin	Туре
Replacement	The same of the same of
93407	5033

AMD

AMD

Fairchild Pin for Pin

MOTOROLA							
Fairchild Pin for Pin Replacement	Motorola Type						
See	5400						
T.I.	54H00						
Cross	7400						
Reference	74H00						
9H00, 74H00	3000						
9H08, 74H08	3001						
9H01, 74H01	3004						
9H10, 74H10	3005						
9H11, 74H11	3006						
9H04, 74H04	3008						
9H05, 74H05	3009						
9H20, 74H20	3010						
9H21, 74H21	3011						
9H22, 74H22	3012						
9H30, 74H30	3016						
9H62, 74H62	3018						
9H61, 74H61	3019						
9H50, 74H50	3020						
9H51, 74H51	3023						
9H40, 74H40	3024						
9H60, 74H60	3030						
9H52, 74H52	3031						

ITT (Cont.)

9328 9601	8328 8601					
NATIONAL						
Fairchild Pin for Pin Replacement	National Type					
See T.I.	5400 54H00					
Cross	7400					
Reference	74H00					
9311	8213					
93176	8280					
93177	8281					
9383	8283					
93196	8290					
93197	8291					
9300	8300					
9309	8309					
9310	8310					
9311 9312	8311					
9316 9322	8316 8322					
9390	8530					
9392	8532					
9393	8533					
9375	8550					
9360	8560					
9366	8563					
93164	8570					
9395	8580					

9N00, 7400 9N40, 7440	FJH131 FJH141
9N50, 7450	FJH151
9N53, 7453	FJH171
9N54, 7454	FJH181
9380, 7480	FJH191
9382, 7482 9383, 7483	FJH201 FJH211
9383, 7483 9N02, 7402	FJH221
9N01, 7401	FJH231
9N04, 7404	FJH241
9N05, 7405	FJH251
9352, 7442 9N03, 7403	FJH261 FJH291
9N26, 7426	FJH301
9311	FJH341
9312	FJH351
9322 9309	FJH391 FJH401
93151	FJH441
9341	FJH451
9N70, 7470	FJJ101
9N72, 7472	FJJ111
9N73, 7473 9N74, 7474	FJJ121 FJJ131
9390, 7490	FJJ141
9391, 7491	FJJ151
9375, 7475	FJJ181
9N76, 7476 9393, 7493	FJJ191 FJJ211
9392, 7492	FJJ251
9N107, 74107	FJJ261
9300	FJJ321
93191 9366	FJJ401 FJJ411
9603, 74121	FJK101
9315, 7441	FJL101
9N60, 7460	FJY101
93403 93434	FJQ111 FJR101
	311101

Replacement	Type
See T.I. Cross Reference	5400 54H00 54S00 74H00 74S00
93434	8224
93403	8225
9312	8230
93512	82\$30
9313	82\$30
9386 9301 93S62 93178	8242 8225 82S62 8269 8270
93179	8271
9328	8277
93176	8280
93177	8281
93196	8290
93197	8291
9601	8T22
TEXA	
5400, 9N00	5400
54H00, 9H00	54H00
54S00, 9S00	54S00

INSTRUM	ENTS
5400, 9N00	5400
54H00, 9H00	54H00
54S00, 9S00	54S00
5401, 9N01	5401
54H01, 9H01	54H01
5402, 9N02	5402
5403, 9N03	5403
54S03, 9S03	54803
5404, 9N04	5404
54H04, 9H04	54H04
54S04, 9S04	54S04
5405, 9N05	5405
54H05, 9H05	54H05
54S05, 9S05	54S05
5406, 9N06	54O6
5407, 9N07	5407
5408, 9N08	5408
54H08, 9H08	54H08
5409, 9N09	5409
5410, 9N10	5410
10 10 10 10 10 10 10 10 10 10 10 10 10 1	1

INDUSTRY TTL CROSS REFERENCE GUIDE (CONT'D)

T. I. (Co	nt.)	T. I. (Co	nt.)	T. I. (Cor	nt.)	T. I. (Cor	it.)	T. I. (Co	nt.)	T. I. (Con	nt.)	DEAIC	
Fairchild Pin for Pin Replacement 54H10, 9H10	T.I. Type 54H10	5451, 9N51 54H51, 9H51 54H52, 9H52 5453, 9N53 54H53, 9H53	5451 54H51 54H52 5453 54H53	5496, 5396 54H101, 9H101 54H102, 9H102 54H103, 9H103 9000	5496 54H101 54H102 54H103 54104	93435 93406 54190, 93190 54191, 93191 54192, 9360	54185 54187 54190 54191 54192	7416, 9N16 7417, 9N17 7420, 9N20 74H20, 9H20 74S20, 9S20	7416 7417 7420 74H20 74S20	9300 93800 74196, 93196 74864, 9864 74865, 9865	74195 74S195 74196 74S64 74S65	T. I. (Con	it.)
5411, 9N11 54H11, 9H11 5412, 9N12 5413, 9N13	5411 54H11 5412 5413	5454, 9N54 54H54, 9H54 54H55, 9H55 5460, 9N60	5454 54H54 54H55 5460	54107, 9N107 54H108, 9H108	54105 54H106 54107 54H108	54193, 9366 9300 93S00 54196, 93196	54193 54195 54S195 54196	74H21, 9H21 74H22, 9H22 74S22, 9S22 7423, 9N23	74H21 74H22 74S22 74S3	7470, 9N70 74H71, 9H71 7472, 9N72 74H72, 9N72	7470 74H71 7472 74H72	74S113, 9S113 74S114, 9S114 74121, 9603 74S140, 9S140 74141, 93141	74S113 74S114 74121 74S140 74141
5416, 9N16 5417, 9N17 5420, 9N20 54H20, 9H20 54S20, 9S20 54H21, 9H21	5416 5417 5420 54H20 54S20	54H60, 9H60 54H61, 9H61 54H62, 9N32 54S64, 9S64 54S65, 9S65 5470, 9N70	54H60 54H61 54H62 54H64 54S65 5470	54S112. 9S112 54S113, 9S113 54S114, 9S114 54121, 9603 54S140, 9S140 54145, 93145	54S112 54S113 54S114 54121 54S140 54145	54197, 93197 54198, 93198 7400, 9N00 74H00, 9H00 74S00, 9S00 7401, 9N01	54197 54198 7400 74H00 74S00 7401	7425, 9N25 7426, 9N26 7427, 9N27 7430, 9N30 74H30, 9H30 7432, 9N32	7425 7426 7427 7430 74H30 7432	7473, 9N73 74H73, 9N73 7474, 9N74 74H74, 9H74 74S74, 9374 7475, 9375	7473 74H73 7474 74H74 74S74 7475	74145, 93145 74150, 93150 74151, 93151 74152, 93152 74153, 93153	74145 74150 74151 74152 74153
54H22, 9H22 54S22, 9S22 5423, 9N23 5425, 9N25 5426, 9N26	54H22 54S22 5423 5425	54H71, 9H71 5472, 9N72 54H72, 9H72 5473, 9N73 54H73, 9H73	54H71 5472 54H72 54H73 54H73	54150, 93150 54151, 93151 54152, 93152 54153, 93153 9311	54150 54151 54152 54153 54154	74H01, 9H01 7402, 9N02 7403, 9N03 74S03, 9S03	74H01 7402 7403 74S03	7437, 9N37 7438, 9N38 7439, 9N39 7440, 9N40	7437 7438 7439 7440	7476, 9N76 74H76, 9H76 7477, 9377 74H78, 9H78 7480, 9380	7476 74H76 7477 74H78 7480	9311 9322 9310 9316 74164, 93164	74154 74157 74160 74161 74164
5427, 9N27 5430, 9N30 54H30, 9H30 5432, 9N32	5427 5430 54H30 5432	5474, 9N74 54H74, 9H74 54S74, 9S74 5475, 9375	5474 54H74 54S74 5475	9322 9310 9316 7460, 9N60	54157 54160 54161 7460	7404, 9N04 74H04, 9H04 74S04, 9S04 7405, 9N05	7404 74H04 74S04 7405	74H40, 9H40 74S40, 9S40 9315 7442, 9352	74H40 74S40 7441A 7442	93407 7482, 9382 7483, 9383 7486, 9N86	7481 7482 7483 7486	74165, 93165 74166, 93166 74176, 93176 74177, 93177 74178, 93178	74165 74166 74176 74177 74178
5437, 9N37 5438, 9N38 5439, 9N39 5440, 9N40 54H40, 9H40	5437 5438 5439 5440 54H40	5476, 9N76 54H76, 9H76 5477, 9377 54H78, 9H78 93407	5476 54H76 5477 5480 5481	74H60, 9H60 74H61, 9H61 74H62, 9H62 54164, 93164 54165, 93165	74H60 74H61 74H62 54164 54165	74H05, 9H05 74S05, 9S05 7406, 9N06 7407, 9N07 9001	74H05 74S05 7406 7407 74105	7443, 9353 7444, 9354 7445, 9345 7446, 9357A 7447, 9357B	7443 7444 7445 7446A 7447A	74H87, 93H87 93434 93403 7490, 9390 7491, 9391	74H87 7488A 7489 7490 7491	74179, 93179 74180, 93180 74181, 9341 745181, 93541	74179 74180 74181 74S181 74S181
54\$40, 9\$40 9315 5442, 9352 5443, 9353 5444, 9354	54S40 5441 5442 5443 5444	5482, 9382 5483, 9383 5486, 9N86 54H87, 93H87 93434	5482 5483 5486 54H87 5488A	54166, 93166 54176, 93176 54177, 93177 54178, 93178 54179, 93179	54166 54176 54177 54178 54179	74H106, 9H106 74107, 9N107 74H108, 9H108 7408, 9N08 74H08, 9H08	74H106 74107 74H108 7408 74H08	7448, 9358 7449, 9359 7450, 9N50 74H50, 9H50 7451, 9N51	7448 7449 7450 74H50 7451	7492, 9392 7493, 9392 7494, 9394 7495, 9395	7492 7493 7494 7495A	74182, 9342 74S182, 93S42 74H183, 93H183 93434 93435	74S182 74H183 74184 74185
5445, 9345 5446, 9357Z 5447, 9357B 5448, 9358	5445 5446A 5447A 5448	93403 5490, 9390 5491, 9391 5492, 9392	5489 5490 5491 5492	54181, 9341 545181, 9341 54182, 9342	54180 54181 54S181 54182	7409, 9N09 7410, 9N10 74H10, 9H10	7409 7410 74H10	74H51, 9H51 74H52, 9H52 7453, 9N53	74H 51 74H 52 7453	7496, 9396 74H101, 9H101 74H102, 9H102 74H103, 9H103	7496 74H101 74H102 74H103	74190, 93190 74191, 93191 74192, 9360	74187 74190 74191 74192
5449, 9359 5450, 9N50 54H50, 9H50	5449 5450 54H50	5493, 9393 5494, 9394 5495, 9395	5493 5494 5495	54S182, 93S42 54H183, 93H183 93434	54S182 54H183 54184	7411, 9N11 74H11, 9H11 7412, 9N12 7413, 9N13	7411 74H11 7412 7413	74H53, 9H53 7454, 9N54 74H54, 9H54 74H55, 9H55	74H53 7454 74H54 74H55	9000 74S109, 9S109 74S112 9S112		74193, 9366 74197, 93197 74198, 93198	74193 74197 74198

SOLID-STATE DEVICES COMPETITIVE CROSS-REFERENCE

	SOL	ID-STATE	DEVIC	ES COMP	ETITIVE	CROSS-	REFERE	NCE	
мото		NATIO	NAL	RCA (Cont.)	SPRAGU	E (Cont.)	T. I. ((Cont.)
Fairchild Direct Replacement	Motorola Type	Fairchild Direct Replacement	National Type	CA3046 CA3054 CA3064	CA3046 CA3054 CA3064	780DC 780DC 781DC	ULN2124A ULN2124N ULN2127A	711HM 711FM 711DC 711DC	SN52711L SN52711S SN72711J SN72711N SN72711L
732DC 732DC 729DC 729DC 767DC	MC1304P MC1304PQ MC1305P MC1305PQ MC1307P	LM101 LM101A LM101AD LM101D LM101F	LM101 LM101A LM101AD LM101D LM101F	CA3064 CA3065 CA3066 CA3067	CA3064 CA3065 CA3066 CA3067	781DC 781DC 776DC 776DC CA3075	ULN2127A ULN2127N ULN2128A ULN2128N ULN2129A	TITHE	SN72711N SN72711L SN72711S
76700		LM101F LM109K LM201 LM201A LM201AF	LM101F LM109K LM201	CA3068 CA3075 CA3076	CA3068 CA3075 CA3076	CA3075 CA3065 CA3065	ULN2129N ULN2165A ULN2165N	711FM 733DM 733HC 733DC 733HC	SN72711S SN52733N SN52733L SN72733N SN72733L
746HC 746DC 746DC 795DC	MC1307PQ MC1328G MC1328P MC1328PQ MC1495L	LM201AD	LM201AD	Fairchild Direct	Signetics Type	Т.		741DM 741DM 741HM 741FM 741DC	SN52741J SN52741N SN53741L SN52741Z SN72741N
796HC 795DC 796DM 709FM	MC1496G MC1595L MC1596G MC1709CF MC1709CG	LM209K LM301A LM301AD LM301AF	LM209K LM301A LM301AD LM301AF	Replacement		Fairchild Direct Replacement	T. I. Type	741FM 741DC 741DC	SN52741Z SN72741N SN72741J
709HC		LM309K	LM309K	740HM 740HC 710HM 710HL 795DC	SE536T NE536T S5101T N5201T S5595F	SN55107J SN75107J SN75107N SN55108J SN75108J	Type SN55107AJ SN75107AJ SN75107AN SN55108AJ SN75108AJ	741DC 741TC 741HC 741FM 747DM	SN72741J SN72741P SN72741L SN72741Z SN52747J
709DC 709FM 709HM 709DM 710FM	MC1709CL MC1709F MC1709G MC1709L MC1710CF	710HC 703HC 709HM 709AHM 709HC 709DC	LM701C LM703L LM709 LM709A LM709C LM709CN	796HM 796HC 709HM 709HC 710HM	S5596K N5596K S5709T N5709T S5710T	SN75108J SN75108N SN75109J SN75109J SN75109N SN55110J	SN75108AJ SN75108AN SN75109J SN75109J SN75109N SN55110J	747DM 747HM 747DC 747DC 747DC 747HC	SN7524N SN52747L SN72747J SN72747N SN72747L
710HC 710DC 710FM		709DC 710HM 710HM 710HM 710DC 711HM	LM709CN LM710- LM710A LM710CN LM711	710HM 710HM 711HM 711HC 723HM 723HC	N5710T S5711K N5711K S5723L N5723L	SN751090 SN75110J SN75110J	SN751090 SN75110J	747HC 748DM	
710HM 710DM	MC1710CG MC1710CL MC1710F MC1710G MC1710L	711HC 711DC 723HM 723HC 741HM	LM711C LM711CN LM723 LM723C LM741	723HM 723HC 733HM	S5723L N5723L S5733K	\$N75110J \$N75110N LM101D LM101AH LM101AF	SN75110J SN75110N SN52101J SN52101AL SN52101AZ	748DM 748DM 748HM 748FM 748DC	SN52748J SN52748N SN52748L SN52748Z SN72748J
711FM 711HC 711DC 711FM 711HM	MC1711CF MC1711CG MC1711CL MC1711F MC1711G	723HC 741HM 741HC 748HM 748HC 739DC 732DC	LM723C LM741 LM741C LM748 LM748C LM1303 LM1304	733HM 733HC 733DM 740HM 740HC	\$5733K N5733K S5733F SF540T N5740T	LM301AD LM301AD LM301AH LM301AF 709AHM	SN52101AZ SN72301AJ SN72301AN SN72301AL SN72301AZ SN52709AL	748DC 748TC 748HC 748FM SN7524J	SN72748N SN72748P SN72748L SN72748Z SN7524J
711DM 702FM 702HC	MC1711L MC1712CF MC1712CG MC1712CL MC1712F	739DC 732DC 732DC CA3065 SN7524 SN7525	LM1303 LM1304 LM1305 LM3065 LM7524 LM7525	741HM 741HC 741TC 748HM 748HC	S5741T N5741T N5741V S5748T N5748T	709AHM 709AFM 709ADM 709ADM 709DM 709DM	SN52709AL SN52709AS SN52709AN SN52709AJ SN52709N SN52709J	SN7524J SN7524N SN7525J SN7525N SN75235J SN75235N	SN7524J SN7524N SN7525J SN7525N SN75235J
702DC 702FM 702DM		SN7524 SN7525	LM7524 LM7525	743TC SN7524 SN7525	N5748V N7524B N7525B	709DM 709DM 709HC	SN52709N SN52709J SN52709L	SN75235J SN75235N SN7540AN	SN/5235N
723HC 723HM 723DC 723DM	MC1712L MC1723CG MC1723G MC1723CL MC1723L	RC	The second second	SPRA		709HC 709FM 709DC 709DC 709FM	\$N52709L \$N52709\$ \$N72709N \$N72709J \$N72709S	SN7540AN SN75451P 767DC 732DC 729DC	SN75450AN SN75451AP SN76110N SN76104 SN76105
741FM 741HC 741DC		Fairchild Direct Replacement	RCA Type	Fairchild Direct Replacement	Sprague Type	710DM 710DM 710HM 710FM 710DC	SN52701J SN52710N	739DC 780DC	SN76131 SN76242 SN76243
741DC 741TC 741FM	MC1741CF MC1741CG MC1741CL MC1741CP MC1741F	CA3018 CA3019 CA3026 746HC 732HC	CA3018 CA3019 CA3026 CA3031 CA3032	746DC 746HC 746DC 746HC 732DC	ULN2114A ULN2114K ULN2114N ULN2114W ULN2120A	710FM 710DC 710DC	SN52701J SN52710N SN52710L SN52710S SN72710J SN72710J	739DC 780DC 781DC 746DC 786DC	SN76246 SN76630
741HM 702HM 741DM	MC1741G MC1741G MC1741L	732HC CA3036 CA3039 CA3045	CA3032 CA3036 CA3039 CA3045	732DC 732DC 729DC 729DC	ULN2120A ULN2120N ULN2122A ULN2122N	710DC 710HC 710FC 711DM 711DM	SN72710N SN72710L SN72710S SN52711J SN52711N	785DC CA3064 CA3065 767DC	SN76533 SN76564 SN76665 SN76110

TRANSISTORS, DIODES, RECTIFIERS AND ASSOCIATED DEVICES

This directory is provided as a convenient means of selecting devices. Major specifications and case dimensions are given. Dissipation is listed at 25° C ambient; on high power devices designated by "C" the rating is listed for case temperature of 25° C. Temperature-compensated zeners list two sets of figures in the tolerance column. The first gives the % of voltage change for each ° C of temperature change; the second, zener voltage tolerance. In the transistor section under HFE † indicates an Alpha value. Under the ft column, the matching tolerance for the differential amplifier pair is given at % † at the current under the HFE mA column. No listing under collector current is limited by dissipation of the device. No listing under ft usually an ft below 50 KHz. In material and function column, the first letter indicates type of material (S=Silicon; G=Germanium; SL=Selenium); second letter indicates polarity, if any. (N=NPN, P=PNP); succeeding letters indicate function (see table).

SUBSTITUTIONS. Allied Electronics reserves the right to substitute, if necessary, an identical device of another manufacturer for the brand requested.

ERRORS. The information presented here has been thoroughly checked for its accuracy. However, Allied Electronics will not be liable for any inaccuracies, should they occur.

	FUNCTION	ABBREVI/	ATIONS
REC-B	Rectifier Bridge	UJ	Unijunction
REC-T	Rectifier Tripler	AU	Amplifier UHF
SS	Small Signal	SCR	Silicon Controlled
REC-F	Fast Recovery Rectifier		Rectifier
FRR	Fast Recovery Rectifier	AV	Amplifier VHF
RECT	Rectifier	LN	Low Noise Amplifier
CD	Computer Diode	DA	Darlington Amplifier
ZEN	Zener	SP	Switch Power
GP	General Purpose	SM	Switch Medium Speed
ZTC	Zener Temp. Compensated	FE	Field Effect
REC-D	Rectifier Doubler	AA	Amplifier Audio
SH	Switch High Speed	AD	Amplifier Differential
AP	Amplifier Power	DT	Dual Transistor
AR	Amplifier Radio Low	DC	Dual Chopper
	Freq.	HCD	High Speed Computer
AH	Amplifier High Freq.		Diode
S	Switch	TRIAC	Bi-Directional Thyristor
		IF	Insulated Gate FET

Stock	Туре	Case	Mat.	Dissi-	Max. Peak	Reverse	Forward Current	Rec. Time	111	EAC		243
Number	Type	Case	Funct.	pation Watts	Rev. Volt	Current µA@V	@VF=IV	Nano- Sec.	1-24	25- 99	100- 999	1000- Up
524-1001 524-1005 524-1009 524-1046 524-1050	1N21B 1N21C 1N21D 1N23B 1N23C							107	2.03 2.06 4.19 2.94 1.55	1.63 1.65 3.35 2.35 1.48	1.36 1.38 2.98 1.96 1.23	
524-1054 524-1058 524-1076 524-1106 524-1113	1N23D 1N23E 1N23WE 1N26 1N28E			100	33				4.66 6.31 6.97 14.34 7.28	3.73 5.05 5.58 11.48 5.83	3.11 4.22 4.66 9.58 4.86	200
578-0034 524-1152 577-0060 524-1162 524-1166	1N34A 1N54A 1N60 1N64 1N67A	DO-7 DO-7	GSS	.080	75 40	30-10 200-10	5		.40 .32 .40 .40 .40	.32 .25 .32 .32 .32	.20 .17 .20 .20 .20	
524-1178 524-1182 524-1188 577-2129 524-1212	1N82A 1N90 1N100 1N129A 1N191	SP10 DO-5	S RECT	100	10	60			.81 .34 .56 5.70 .32	.65 .27 .45 3.80 .25	.54 .23 .38 2.84 .21	
577-0249 577-0250 551-0251 554-0251 577-0429	1N249C 1N250C 1N251 1N251JAN 1N429	D0-5 D0-5 SP-25 SP-25 SP-11	S RECT S RECT SCD		100 200 40 40	5000-100 5000-200 100-10 100-10	20A lo 20A lo 5	150 30	3.18 3.85 .28 .25 9.50	2.54 3.08 .26 .23 7.60	1.49 1.82 .19 .18 4.53	.13
817-0430 577-0430 577-0444 577-0445 552-0456	1N430 1N430A 1N444B 1N445B 1N456A	D0-1 D0-1 D0-7	S RECT S RECT SGP		500 600 30	1.75-500 2-600 .025-25	650-1.5V 650-1.5V 100		19.34 31.13 1.55 2.10 .76	16.28 24.79 1.24 1.68 .69	13.67 22.00 .78 1.05 .51	.35
552-0457 552-0458 552-0459 552-0461 552-0462	1N457A 1N458A 1N459A 1N461A 1N462A	D0-7 D0-7 D0-7 D0-7 D0-7	SGP SGP SGP SGP SGP	2 2 2 2 2 2	70 125 175 30 70	025-60 .025-125 .025-175 .5-25 .5-60	100 100 200 100 5	1 2200	.72 .76 .76 .76	.69 .69 .69 .69	.51 .51 .51 .51	.35 .35 .35 .35 .35
552-0463 552-0464 817-0465 577-0465 817-0466	1N463A 1N464A 1N465 1N465A 1N466	D0-7 D0-7	SGP SGP	2 2	175 125	.5-175 .5-125	1.00		.42 .76 4.83 6.48 4.83	.38 .69 3.86 5.18 3.86	.28 .51 2.43 3.26 2.43	.20
577-0466 817-0467 577-0467 817-0468 577-0468	1N466A 1N467 1N467A 1N468 1N468A				300			13000	6.48 4.83 6.48 4.83 6.48	5.18 3.86 5.18 3.86 5.18	3.26 2.43 3.26 2.43 3.26	
817-0469 577-0469 817-0470 577-0470 553-0482	1N469 1N469A 1N470 1N470A 1N482B	00-7	SGP	.2	36	25-30	100-1.1V	To the second	4.83 6.48 4.83 6.48 .76	3.86 5.18 3.86 5.18 .69	2.43 3.26 2.43 3.26 .51	.35
553-0483 553-0484 553-0485 553-0486 577-0536	1N483B 1N484B 1N485B 1N486B 1N536	D0-7 D0-7 D0-7 D0-7 D0-7	SGP SGP SGP SGP S RECT	2 2 2 2 2 2	70 130 200 250 50	025-60 .025-130 .025-175 .05-225 400-50	200 200 100 100 750MA fo	1	.76 .76 .76 .76	.69 .69 .69 .69	.51 .51 .51 .51 .32	.35 .35 .35 .35
577-0537 577-0538 577-0539 577-0540 577-0547	1N537 1N538 1N539 1N540 1N547	D0-1 D0-1 D0-1 D0-1 D0-1	S RECT S RECT S RECT S RECT S RECT		100 200 300 400 600	400-100 300-200 300-300 300-400 350-600	750MA to 750MA to 750MA to 250MA to 250MA to	Jan.	.65 .73 .88 .98	.47 .58 .70 .78 1.12	.34 .38 .43 .47 .66	
551-0619 551-0625 551-0627 551-0628 551-0629	1N619 1N625 1N627 1N628 1N629	00-7 00-7 00-7 00-7 00-7	SGP SGP SGP SGP SGP	.400 400 400 400	30 30 100	.08-10 1-20 1-75	3 4-1.5V 4-1.5V 4-1.5V 4-1.5V	1000 1000 1000 1000	.73 .42 .76 .76	.66 .38 .69 .69	.48 .28 .50 .50	.33 .20 .35 .35 .35
551-0659 551-0660 551-0661 551-0662 551-0663	1N659 1N660 1N661 1N662 1N663A	00-7 00-7 00-7 00-7 00-7	SCD SCD SCD SCD SCD	1 000	60 100 200 80 80	1-100 5-100 10-200 1-10 5-75	400 6 6 10 100	6 300 300 500 500	.73 .76 .99 .76	.66 .69 .90 .69	.48 .51 .67 .51	.33 .35 .47 .35 .35
551-0678 524-1535 578-0702	1N678 1N695 1N702A	1-1				133			.76 .38 1.16	.69 .31 1.05	.51 .26 .88	.35

Stock	Туре	Case	Mat.	Dissi-	Zener Voit-	Zener Test	Zener Test	Tol.		EAC	Н	
Number	туре	Gase	Funct.	pation Watts	age Volts	Current	imped. Ohms	%	1- 24	25- 99	100- 999	1000- Up
578-0703 578-0704	1N703A 1N704A	D0-7 D0-7	S ZEN S ZEN	.25	3.4	5 5	55 45	5 5	1.16	1.05	.88	-
578-0705 578-0706 578-0707 578-0708 578-0709	1N705A 1N706A 1N707A 1N708A 1N709A	D0-7 D0-7 D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN S ZEN S ZEN	.25 .25 .25 .25 .25 .25	4.8 5.8 8.0 5.6 6.2	5 5 25 25	35 20 10 3.6 4.1	55555	1.16 1.16 1.16 1.16 1.16	1.05 1.05 1.05 1.05 1.05 1.05	.88 .88 .88 .88	
578-0710 578-0711 578-0712 578-0713 578-0714	1N710A 1N711A 1N712A 1N713A 1N714A	DO-7 DO-7 DO-7 DO-7 DO-7	S ZEN S ZEN S ZEN S ZEN S ZEN	.25 .25 .25 .25 .25	6.8 7.5 8.2 9.1 10	25 25 25 12 12	4.7 5.3 6 7 8	5 5 5 5 5	1.16 1.16 1.16 1.16 1.16	1.05 1.05 1.05 1.05 1.05	.88 .88 .88 .88	
578-0715 578-0716 577-0717 578-0718 578-0719	1N715A 1N716A 1N717A 1N718A 1N719A	00-7 00-7	S ZEN	.25	11	12	13	5	1.16 1.16 1.16 1.16 1.16	1.05 1.05 1.05 1.05 1.05	.88 .88 .88 .88	
577-0720 578-0721 578-0722 578-0722 578-0723 577-0724	1N720A 1N721A 1N722A 1N723A 1N724A	D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN	.25 .25 .25	20 22 24	4 4 4	20 24 28	5 5 5	1.16 1.16 1.16 1.16 1.16	1.05 1.05 1.05 1.05 1.05	.88 .88 .88 .88	
578-0725 578-0726 578-0746	1N725A 1N726A 1N746A	00-7	S ZEN	.4	3.3	20	28	5	1.16 1.16 1.16	1.05 1.05 1.05	.88 .88 .88	
578-0747 578-0748 578-0749 578-0750 578-0751	1N747A 1N748A 1N749A 1N750A 1N751A	00-7 00-7 00-7 00-7	S ZEN S ZEN S ZEN S ZEN	4 4 4 4	3.9 4.3 4.7 5.1	20 20 20 20 20	23 22 19 17	5 5 5 5	1.16 1.16 1.16 1.16 1.16	1.05 1.05 1.05 1.05 1.05	.88 .88 .88 .88	
578-0752 578-0753 552-0756 552-0757 552-0758	1N752A 1N753A 1N756A 1N757A 1N758A	D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN S ZEN	4 4 4	5.6 6.2 8.2	20 20 20 20	11 7 8	5 5 5	1.16 1.16 .91 .91	1.05 1.05 .83 .83 .83	.88 .88 .61 .61	.41 .41 .41
552-0759 551-0816 577-0821 577-0823 578-0823	1N759A 1N816 1N821JAN 1N823 1N823A	D0-7 D0-7 D0-7 D0-7	SGP SZTC SZTC SZTC	6P	RV-0.1μA 6.2 6.2 6.2 6.2	IR (c. 4v - 7.5 7.5 7.5	100mA IFVF 15, 15	= IV * 01-10 * .005-1 * .005-5	.91 .76 2.95 2.95 3.82	.83 .69 2.68 2.68 3.47	.61 .51 2.26 2.26 2.92	.41
578-0825 577-0825 577-0826	1N825A 1N825JAN 1N826	D0-7 D0-7 D0-7	SZTC SZTC SZTC	4 4	6.2 6.2 6.5	7.5 7.5 7.5	15 15 15	* 002-1 * 002-1 * 002-10	6.01 6.49 12.13	5.46 5.88 9.70	4.75 4.97 5.79	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Max. Peak Rev. Volt	Reverse Current µA@V	Forward Current @VF=IV mA	Rec. Time Nano- Sec.	1-24	25- 99	100-	1000- Up
551-0844 552-0903	1N844 1N903A	D0-7 D0-7	SGP SCD	wans	60	100	1-80	200	.73	.66	.43	.33
552-0904 552-0905 552-0907 551-0914 553-0914	1N904 1N905A 1N907A 1N914 1N914B	00-7 00-7 00-7	SCD SCD SCD	77.	50 40 50	100-30 100-20 100-30 25-20	10 20 10	4 4 4	.73 .50 .73 .28 .28	.66 .45 .66 .26	.48 .34 .48 .19	.33 .23 .33 .13
554-0914	1N914JAN	DO-7	SCD		100	25-20	100	5	.81	.74	.54	.13
553-0916 551-0925 551-0926	1N916B 1N925 1N926	D0-7 D0-7	SCD SCD	1	40 40	1-10	5 5		.30 .28 .73	.27 .26 .66	.20 .19 .48	.14 .13 .33
Stock	Туре	Case	Mat.	Dissi-	Zener Volt-	Zener Test	Zener Test	Tol.		EAC		
Number			Funct.	pation Watts	age Voits	Current mA	Imped. Ohms	%	1-24	25- 99	100-	1000- Up
578-0935	1N935B	DO-7	SZTC	5	9.0	7.5	20	*.01-10	1.84	1.68_	1.60	
578-0936 578-0937 577-0938 578-0939 578-0957	1N936B 1N937B 1N938B 1N939B 1N957B	D0-7 D0-7 D0-7 D0-7	SZTC SZTC SZTC SZTC	5 5 5 5	9.0 9.0 9.0 9.0	7.5 7.5 7.5 7.5	20 20 20 20 20	*.005-5 *.002-10 *.001-10 *.0005-10	2.20 4.28 5.54 14.32 .74	2.00 3.89 5.04 13.02 .68	1.88 3.64 4.75 12.30 .50	.35
578-0958 578-0959	1N958B 1N959B	7-5-5	10		14 19				.74 .74	.68	.50 .50	.35 .35

Discrete Devices Directory

Ctook	Type	Case	Mat.	Dissi-	Zener Volt-	Zener Test	Zener	Tol.	Property live	EACH		
Stock Number	Туре	Case	Funct.	pation Watts	age Volts	Current	Imped. Ohms	%	1-24	25- 99	100- 999	1000- Up
578-0960 578-0961 578-0962	1N960B 1N961B 1N962B		1130						.74 .74 .74	.68 .68 .68	.50 .50 .50	.35 .35 .35
578-0963 553-0964 553-0965 578-0966 578-0967	1N963B 1N964B 1N965B 1N966B 1N967B	D0-7 D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN S ZEN S ZEN	.4 .4 .4 .4	13 15 16 18	9.5 8.5 7.8 7.0	13 16 17 21	5 5 5 5	.74 .74 .74 .74 .74	.68 .68 .68 .68	.50 .50 .50 .50 .50	.35 .35 .35 .35 .35
578-0968 578-0969 578-0970 578-0971 578-0972	1N968B 1N969B 1N970B 1N971B 1N972B	D0-7 D0-7 D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN S ZEN S ZEN	.4 .4 .4 .4 .4	20 22 24 27 30	6.2 5.6 5.2 4.6 4.2	25 29 33 41 49	5 5 5 5 5 5	.74 .74 .74 .74 .74	.68 .68 .68 .68	.50 .50 .50 .50	.35 .35 .35 .35 .35
578-0973 578-0985 552-0992	1N973B 1N985B 1N992A	D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN	.4	33 100 200	3.8 1.3 .65	58 500 2500	5 5 10	.74 2.08 3.00	.68 1.66 2.00	.50 1.05 1.60	.35

24-4	WAS A STREET	0	Material	Max.	Reverse	Opposition	102 1/2 /	EAC	1	1411
Stock Number	Туре	Case	Material Function	Peak Reverse Voltage	Current mA	Operating Current to Amps	1- 24	25- 99	100- 999	1000- Up
916-1082 916-1083	1N1082 1N1083	SP-1 SP-1	S RECT S RECT	200 300		1	1.00	.80	.53 .57	M.
916-1084 916-1086 916-1088 916-1110 916-1113	1N1084 1N1086A 1N1088A 1N1110 1N1113	SP-1 SP-2 SP-2 SP-3 SP-3	S RECT S RECT S RECT S RECT S RECT	400 200 400 1600 2800		1 2 2 .400 .325	1.10 6.00 8.00 6.00 10.00	.88 4.80 6.40 4.80 8.00	.59 3.20 4.27 3.30 5.45	
577-1115 577-1117 577-1120 916-1124 577-1183	1N1115 1N1117 1N1120 1N1124A 1N1183	D0-4 D0-4 D0-4	S RECT S RECT S RECT	100 300 600 50	.4 .3 .3	1.5 1.5 1.5	1.53 2.23 4.08 2.25 3.05	1.22 1.78 3.26 1.80 2.44	.76 1.05 1.92 1.20 1.44	
817-1183 577-1184 577-1185 577-1186 578-1186	1N1183RA 1N1184 1N1185 1N1186 1N1186A	D0-5 D0-5 D0-5 D0-5 D0-5	S RECT S RECT S RECT S RECT S RECT	50 100 150 200 200	2.5 2.5 2.5 2.5 2.5	40 35 35 35 35 40	3.45 3.73 4.55 4.55 5.80	2.76 2.98 3.64 3.64 4.64	1.59 1.76 2.15 2.48 2.67	
817-1186 577-1188 578-1188 817-1188 577-1189	1N1186RA 1N1188 1N1188A 1N1188RA 1N1189	D0-5 D0-5 D0-5 D0-5 D0-5	S RECT S RECT S RECT S RECT S RECT	200 400 400 400 400 500	2.5 2.5 2.5 2.5 2.5	40 35 40 40 35	5.80 8.83 9.93 9.93 9.80	4.64 7.06 7.94 7.94 7.84	2.67 4.19 4.57 4.56 4.63	
578-1189 577-1190 578-1190 817-1190 577-1191	1N1189A 1N1190 1N1190A 1N1190RA 1N1191	D0-5 D0-5 D0-5 D0-5 D0-5	S RECT S RECT S RECT S RECT S RECT	500 600 800 50	2.0 1.8 1.8 	40 35 40 20	11.88 10.48 13.78 13.78 2.13	9.50 8.38 11.02 11.02 1.70	5.46 4.97 6.34 6.34 1.00	
577-1193 916-1195 916-1198 578-1200 578-1201	1N1193 1N1195A 1N1198B 1N1200A 1N1201A	D0-5 D0-5 D0-5 D0-4 D0-4	S RECT S RECT S RECT S RECT S RECT	150 300 600 100 150	5.0 5.0 5.0 2.5 2.5	20 20 20 12 12	3.30 5.75 7.38 2.10 2.75	2.64 4.60 5.90 1.35 2.20	1.54 2.97 4.50 .99 1.32	
916-1202 916-1203 817-1203 916-1204 817-1204	1N1202A 1N1203B 1N1203RA 1N1204A 1N1204RA	D0-4 D0-4 D0-4 D0-4 D0-4	S RECT S RECT S RECT S RECT S RECT	200 300 300 400 400	1.75 1.75 1.5 1.5	12 12 12 12 12	2.53 3.63 5.38 4.62 6.90	2.30 3.30 4.30 4.20 5.52	1.50 2.20 2.54 3.60 3.26	
578-1205 916-1206 817-1206 817-1313 577-1314	1N1205A 1N1206A 1N1206RA 1N1313 1N1314A	D0-4 D0-4 D0-4	S RECT S RECT S RECT	500 600 600	1.25	12 12 12	8.15 6.49 9.50 5.25 9.10	6.52 5.90 7.60 4.20 7.28	3.86 3.20 4.53 2.48 4.31	
817-1318 578-1341 578-1342 578-1344 578-1345	1N1318 1N1341B 1N1342B 1N1344B 1N1345B	D0-4 D0-4 D0-4 D0-4	S RECT S RECT S RECT S RECT	50 100 200 300	3 3 2 0.45	650 650 6 6	5.25 1.85 2.23 3.73 5.25	4.20 1.48 1.78 2.98 4.20	2.48 .85 1.03 1.71 2.42	
578-1346 578-1348 916-1491	1N1346B 1N1348B 1N1491	D0-4 D0-4 D0-1	S RECT S RECT S RECT	400 600 500	1.5 0.45 .3	6	6.90 9.65 .73	5.52 7.72 .65	3.17 4.44 .48	

	LEYS.	1	MAN B	14.35	Zener	Zener	Zener	7-1		EACH	1118	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Volt- age Volts	Test Current mA	Test Imped. Ohms	Tol. %	1-24	25- 99	100- 999	1000 Up
577-1520 916-1526 916-1527 578-1594 578-1595	1N1520 1N1526 1N1527 1N1594A 1N1595A	00-13 00-13 00-13 00-4 00-4	S ZEN S ZEN S ZEN S ZEN S ZEN	1.0 1.0 1.0 3.5 3.5	5.6 18 22 12.0 15.0	35 10 9	5.5 11.0 18.0	10 10 10 5 5	4.95 2.75 2.75 8.55 8.55	3.96 2.50 2.50 6.84 6.84	2.43 1.80 1.80 4.02 4.02	
916-1597 577-1600 578-1601 578-1604 578-1606	1N1597 1N1600 1N1601A 1N1604A 1N1606A	D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN	3.5 10.0 10.0 10 10	22.0 4.7 5.6 10 15	400 350 200 140	.9 .6 1.0 2.9	10 10 5 5 5	4.25 11.15 14.88 14.88 14.88	3.40 8.92 11.90 11.90 11.90	2.40 5.24 7.06 7.06 7.06	

27 127	NAME OF THE OWNER, OWNE			Max.				EAC	H	
Stock Number	Туре	Case	Material Function	Peak Reverse Voltage	Reverse Current mA	Operating Current Io Amps	1- 24	25- 99	100- 999	1000- Up
916-1612 916-1613 817-1613 916-1614 916-1616	1N1612 1N1613 1N1613R 1N1614 1N1616	D0-4 D0-4 D0-4 D0-4 D0-4	S RECT S RECT S RECT S RECT S RECT	50 100 100 200 400	1 1 1 1 1 1	55555	1.63 1.78 1.95 1.88 5.39	1.30 1.42 1.56 1.70 4.90	.75 .89 .90 1.20 3.25	
916-1691 577-1736 578-1738 578-1764	1N1694 1N1736 1N1738A 1N1764A	DO-3 SP-8 SP-8 SP-13	S RECT S ZTC S ZTC S RECT	300 . Vz 12.4 - Vz 24.8 - 500	.5 IZT 7.5 - 40 ZZ IZT 7.5 - 80 ZZ .5		.63 12.98 18.97 .88	.53 10.33 16.91 .70	.35 6.12 13.35 .42	.21

THE PERSON	THE PARTY NAMED IN	11/1/20			Zener	Zener	Zener			EAC	H	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Volt- age Volts	Test Current mA	Test Imped. Ohms	Tol. %	1-24	25- 99	100-	1000- Up
916-1766 916-1767 916-1768 916-1769 916-1770	1N1766 1N1767 1N1768 1N1769 1N1770	D0-13 D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1	6.2 6.8 7.5 8.2 9.1	100 100 100 100 50	1.5 1.7 2.1 2.4 3.0	10 10 10 10 10	2.42 2.42 2.42 2.42 2.42 2.42	2.20 2.20 2.20 2.20 2.20 2.20	1.70 1.70 1.70 1.70 1.70	
577-1771 916-1772 916-1773 916-1775	1N1771 1N1772 1N1773 1N1775	D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN	1	10.0 11.0 12.0 15.0	50 50 50 50	3.5 4.2 5.0 7.6	10 10 10 10	5.10 2.42 2.42 2.42 2.42	4.08 2.20 2.20 2.20 2.20	2.35 1.70 1.70 1.70	

SEE PAGE 16 FOR INTEGRATED CIRCUITS

			D	EVIC	ES							
Stock	Туре	Case	Mat.	Dissi-	Zener Volt-	Zener	Zener	Tol.		EACH		
Number	Туре	base	Funct.	pation Watts	age Volts	Current	Imped. Ohms	%	1-24	25- 99	100-	1000- Up
577-1778	1N1778A	7.00		1000		19/2-1	1	The Real Property lies	5.53	4.42	2.54	MA.
817-1780 817-1782 817-1783 817-1787 817-1795	1N1782 1N1783 1N1787		- 00		1 49				5.10 5.10 5.10 5.10 5.10	4.08 4.08 4.08 4.08 4.08	2.35 2.35 2.35 2.35 2.35 2.35	100
817-1798 817-1799 817-1801	1N1798 1N1799 1N1801								5.10 5.10 5.10	4.08 4.08 4.08	2.35 2.35 2.35	THE REAL PROPERTY.

DISCRETE

	MARINE LA			Max.		0	10 10	EACH	Part of	
Stock Number	Туре	Case	Material Function	Peak Reverse Voltage	Reverse Current mA	Operating Current to Amps	1-24	25- 99	100- 999	1000 Up
578-2069 578-2070	1N2069A 1N2070A					13.40	.68	.54	.31	
578-2071 578-2128 578-2130 578-2131 578-2135	1N2071A 1N2128A 1N2130A 1N2131A 1N2135A	D0-5 D0-5 D0-5 D0-5 D0-5	S RECT S RECT S RECT S RECT	50 200 200 400	10 10 10 10	60 60 60 60	1.10 6.08 6.08 8.28 12.00	.88 4.86 4.86 6.62 9.60	.51 2.87 2.87 3.86 5.65	
578-2137 578-2138 577-2157 577-2160 916-5512	1N2137A 1N2138A 1N2157 1N2160 1N2482	D0-5 D0-5 D0-5 D0-5 D0-5	S RECT S RECT S RECT S RECT	600 600 300 600	10 10 3.5 2.0	60 60 60 60	12.62 10.99 8.28 9.85 .50	8.40 9.98 6.62 7.88 .35	6.25 7.39 3.86 4.63 .27	
916-5514 916-5516 916-5405 916-6020 916-2615	1N2483 1N2484 1N2610 1N2614 1N2615	SP33	S RECT	600	.01	.75	.53 .55 .57 .94 1.05	.38 .45 .52 .85 .95	.32 .34 .37 .56 .66	The second

916-5405 916-6020 916-2615	1N2610 1N2614 1N2615	SP33	S.RE	СТ	600	.0	11	.75	.57 .94 1.05	.52 .85 .95	.37 .56 .66	
100000					Zener	Zener	Zener	The state of		EAC	Н	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Volt- age Volts	Test Current mA	Test Imped. Ohms	Tol.	1- 24	25- 99	100-	1000- Up
577-2808 578-2810 817-2827 577-2829	1N2808A 1N28108 1N2827 1N2829A	T0-3 T0-3 T0-3 T0-3	S ZEN S ZEN S ZEN S ZEN	50 50	10.0 12.0 47	1200 1000 270	.6 1.0 5.0	10 5	12.00 12.37 9.75 8.00	6.40 9.19 7.80 6.40	5.65 8.72 4.58 5.65	
578-2831 817-2832 577-2834 577-2835	1N2831B 1N2832 1N2834A 1N2835A	TO-3 TO-3	S ZEN S ZEN S ZEN S ZEN	50 50 50	51 68 75	245 180 170	5.2 8.0 9.0	10 10	9.75 8.00 8.00	7.80 6.40 6.40	8.72 4.58 5.65 5.65 2.65	
578-2970 578-2971 578-2972 578-2974 578-2975 578-2976	1N2970B 1N2971B 1N2972B 1N2974B 1N2975B 1N2976B	D0-4 D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	7.5 8.2 10 11 12	370 335 305 250 230 210	1.2 1.3 1.5 3 3	5 5 5 5 5 5	3.47 3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-2977 578-2978 578-2979 578-2980 578-2981	1N2977B 1N2978B 1N2979B 1N2980B 1N2981B	D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10	13 14 15 16	190 180 170 155	3 3 3 4	5 5 5 5	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-2984 578-2985 578-2986 578-2987 578-2988	1N2984B 1N2985B 1N2986B 1N2987B 1N2988B	D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	20 22 24 25 27	125 115 105 100 95	4 5 5 5 7	55555	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-2989 578-2990 578-2991 578-2992 578-2993	1N29898 1N2990B 1N2991B 1N2992B 1N2993B	D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	30 33 36 39 43	85 75 70 65 60	8 9 10 11 12	5 5 5 5 5 5	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-2994 578-2995 578-2996 578-2997 578-2998	1N2994B 1N2995B 1N2996B 1N2997B 1N2998B	D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	45 47 50 51 52	55 55 50 50 45	13 14 15 15 16	55555	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-2999 578-3000 578-3001 578-3002 578-3003	1N2999B 1N3000B 1N3001B 1N3002B 1N3003B	D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN	10	56 75 82	45 33 30	16 22 25	5 5 5	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-3004 578-3005 578-3006 578-3007 578-3008	1N3004B 1N3005B 1N3006B 1N3007B 1N3008B	D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	91 100 105 110 120	28 25 24 23 20	35 40 50 55 75	5 5 5 5 5	3.47 3.47 3.47 3.47 3.47	3.15 3.15 3.15 3.15 3.15 3.15	2.65 2.65 2.65 2.65 2.65 2.65	
578-3009 578-3011 578-3013 578-3014 578-3015	1N3009B 1N3011B 1N3013B 1N3014B 1N3015B	D0-4 D0-4 D0-4 D0-4 D0-4	S ZEN S ZEN S ZEN S ZEN S ZEN	10 10 10 10 10	130 150 175 180 200	19 17 15 14 12	100 175 230 260 300	5 5 5 5 5	3.47 3.47 3.93 3.93 3.93	3.15 3.15 3.57 3.57 3.57	2.65 2.65 2.98 2.98 2.98 2.98	
578-3016 578-3017 578-3018 578-3019 578-3020	1N3016B 1N3017B 1N3018B 1N3019B 1N3020B	D0-13 D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1	6.8 7.5 8.2 9.1 10.0	37 37 31 28 25	3.5 4.0 4.5 5.0 7.0	5 5 5 5 5 5 5	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
578-3021 578-3022 578-3023 578-3024 578-3025	1N3021B 1N3022B 1N3023B 1N3024B 1N3025B	D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1	12.0 13 82 16	21 19 3.0 15.5	9.0 10 200 16	5 5 5 20	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
578-3026 578-3027 578-3028 578-3029 578-3031	1N3026B 1N3027B 1N3028B 1N3029B 1N3031B	D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN	1	18 20 22 24	14 12.5 11.5 10.5	20 22 23 25	5 5 5 5	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
578-3032 578-3033 578-3034 578-3035 578-3036	1N3032B 1N3033B 1N3034B 1N3035B 1N3036B	00-13 00-13 00-13 00-13	S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	36 39 43 47	7.0 6.5 6.0 5.5	50 60 70 80	5555	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
578-3037 578-3038 578-3039 578-3040 578-3041	1N3037B 1N3038B 1N3039B 1N3040B 1N3041B	D0-13 D0-13 D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1	51 56 62 68 75	5.0 4.5 4.0 3.7 3.3	95 110 125 150 175	5 10 10 5 5	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
578-3042 578-3043 578-3044 578-3045	1N3042B 1N3043B 1N3044B 1N3045B	0013 00-13 00-13 00-13	SZEN S ZEN S ZEN S ZEN	1	82 91 100 110	3.0 2.8 2.5 2.3	200 250 250 450	10 10 5 5	2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26	

SEE PAGE 16 FOR INTEGRATED CIRCUITS

		NO DEC			Zener	Zener	Zener	The same of	THE REAL PROPERTY.	EAC	H	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Volt- age Volts	Test Current mA	Test Imped. Ohms	Tol. %	1- 24	25- 99	100- 999	1000 Up
578-3047 578-3048 578-3049 578-3050 578-3051	1N30478 1N30488 1N30498 1N30508 1N30518	D0-13 D0-13 D0-13	S ZEN S ZEN S ZEN S ZEN	1 1 1	130 150 160	1.9 1.7 1.6	700 1000 1100 1500	5 10 10	2.95 2.95 2.95 2.95 2.95 2.95	2.68 2.68 2.68 2.68 2.68	2.26 2.26 2.26 2.26 2.26 2.26	
551-3062 551-3063 551-3064 551-3067	1N3062 1N3063 1N3064 1N3067	D0-7 D0-7 D0-7 D0-7	SCD SCD SCD SCD		75 75 75 30	100-50 100-50 100-50 100-50	20 1085 10 5	2 4 4 4	.73 .73 .73 .73	.66 .66 .66	.48 .48 .48 .48	.33 .33 .33 .33

TOTAL	Shirt of the			Max.		O	13.57	EACH	ACC SE	
Stock Number	Туре	Case	Material Function	Peak Reverse Voltage	Reverse Current mA	Operating Current to Amps	1-24	25- 99	100- 999	1000- Up
577-3085	1N3085	DO-30	S RECT	100	40	150	16.75	15.23	9.60	2757
577-3090	1N3090	DO-30	S RECT	600	40	150	24.84	22.58	14.23	-

		1 10			Zener	Zener	Zener	Tel	1	EACI	H	100
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Voit- age Voits	Test Current mA	Test Imped. Ohms	Tol. %	1-24	25- 99	100-	1000- Up
577-3154 577-3155 577-3156 577-3209 577-3210	1N3154 1N3155 1N3156 1N3209 1N3210	D0-7 D0-7 D0-7 SP-41 SP-41	S ZTC S ZTC S ZTC S RECT S RECT	.5	8.2 8.2 8.2 100	10 10 10 PRV - 15 / PRV - 15 /		*.01-5 *.005-5 *.002-5	4.15 5.53 9.65 2.25 2.62	3.72 4.42 7.72 1.80 1.80	1.93 2.59 4.58 1.05 1.26	
577-3211 578-3211 577-3212 577-3214 577-3290	1N3211 1N3211R 1N3212 1N3214 1N3290	SP-41 SP-41 SP-41 SP-41 DO-8	S RECT. S RECT. S RECT. S RECT. S RECT.		300 400 600	PRV - 15 / PRV - 15 / PRV - 15 / PRV - 15 / PRV - 100	Amp lo Amp lo		3.60 3.60 4.15 6.35 17.91	2.88 2.88 3.32 5.08 10.48	1.71 1.71 1.91 2.92	100 mm
577-3291 577-3292 577-3295 577-3296 578-3305	1N3291 1N3292 1N3295 1N3296 1N33058	DO-8 DO-8 DO-8 DO-8 DO-5	S RECT. S RECT. S RECT. S RECT. S ZEN	50	500 I	PRV - 100 PRV - 100 PRV - 100 PRV - 100 PRV - 100	Amp lo	5	19.86 20.22 32.92 37.54 5.49	11.03 11.58 19.02 21.50 4.99	4.58	100
578-3306 578-3307 817-3308 578-3309 578-3310	1N3306B 1N3307B 1N3308B 1N3309B 1N3310B	D0-5 D0-5 D0-5 D0-5 D0-5	S ZEN S ZEN S ZEN S ZEN S ZEN	50 50 50 50 50	7.5 8.2 9.1 10.0 11	1700 1500 1370 1200 1100	0.3 0.4 0.5 0.6 0.8	5 5 5 5 5	5.49 5.49 5.49 5.49 5.49	4.99 4.99 4.99 4.99 4.99	4.58 4.58 4.58 4.58 4.58	
578-3311 578-3313 578-3314 578-3315 578-3316	1N33118 1N33138 1N33148 1N3315B 1N33168	DO-5 DO-5 DO-5 DO-5 DO-5	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	50 50 50 50 50	12 14 15 16 17	1000 890 830 780 740	1.0 1.2 1.4 1.6 1.6	5 5 5 5 5	5.49 5.49 5.49 5.49 5.49	4.99 4.99 4.99 4.99 4.99	4.58 4.58 4.58 4.58 4.58	100
578-3317 578-3318 578-3319 578-3321 578-3323	1N33178 1N33188 1N33198 1N33218 1N33238	D0-5 D0-5 D0-5 D0-5	S ZEN S ZEN S ZEN S ZEN	50 50 50 50	18 20 24 27	700 630 520 460	2.0 2.4 2.6 2.8	5 555	5.49 5.49 5.49 5.49 5.49	4.99 4.99 4.99 4.99 4.99	4.58 4.58 4.58 4.58 4.58	No. of Street, or other Persons
578-3324 578-3325 578-3327 578-3328 578-3329	1N3324B 1N3325B 1N3327B 1N3328B 1N3329B	D0-5 D0-5 D05 D0-5	S ZEN S ZEN SZEN S ZEN	50 50 50 50	30 33 39 43	420 380 320 290	3.0 3.2 4.0 4.5	5 5 20 5	5.49 5.49 5.49 5.49 5.49	4.99 4.99 4.99 4.99 4.99	4.58 4.58 4.58 4.58 4.58	
578-3330 578-3331 578-3332 578-3333 578-3334	1N3330B 1N3331B 1N3332B 1N3333B 1N3334B	D0-5 D0-5	S ZEN S ZEN	50 50	47 50 56	270 250 220	5.0 5.0	5 5 5	5.49 5.49 5.49 5.49 5.49	4.99	4.58 4.58 4.58 4.58 4.58	
578-3335 578-3336 578-3337 578-3338 578-3340	1N33358 1N3336B 1N3337B 1N3338B 1N3340B	D0-5 D0-5 D0-5	S ZEN S ZEN S ZEN	50 50 50	82 100	150 120	7.0 11.0 20.0	5 5 5	5.49 5.49 5.49 5.49 5.49	4.99	4.58 4.58 4.58 4.58 4.58	
578-3341 578-3342 578-3343 578-3344 578-3346	1N33418 1N33428 1N3343B 1N3344B 1N3346B	00-5 00-5 00-5 00-5 00-5	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	50 50 50 50 50	105 110 120 130 150	120 110 100 95 85	25.0 30.0 40 50 75	5 5 10 5 5	5.49 5.49 5.49 5.49 5.49	4.99	4.58 4.58 4.58 4.58 4.58	
578-3350 577-3492 577-3493 577-3494 577-3495	1N3350B 1N3492 1N3493 1N3494 1N3495	D0-5 D0-21 D0-21 D0-21 D0-21	S ZEN S RECT S RECT S RECT S RECT	50	200	65 PRV - 25 PRV - 25 PRV - 25 PRV - 25	Amps to Amps to	10	5.49 1.20 1.73 2.00 2.28	1.38	4.58 .58 .82 .93 1.08	100
577-3496 577-3498 551-3595	1N3496 1N3498 1N3595	D0-7 D0-7	S ZTC S ZTC	.25	6.2	7.5 7.5	15 15	*.05/5	5.80 10.96 2.48	9.45	2.76 7.72 1.68	1.17

01-11	196 45			Disai	Max.		Forward	Rec. Time	21/6	EAC	H	30
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Peak Rev. Volt	Reverse Current µA@V	Current @VF=IV mA	Nano- Sec.	1-24	25- 99	100- 999	1000 Up
551-3600 551-3602	1N3600 1N3602	DO-7 DO-7	SCD SCD		75 75	100-50 100-50	200 20	3 5	.73 .73	.66	.48	.33
551-3603 551-3604 551-3605 551-3606 577-3641	1N3603 1N3604 1N3605 1N3606 1N3641	00-7 00-7 00-7 00-7 00-7 00-13	SCD SCD SCD SCD S RECT		45 75 40 75 600	100-35 50-50 50-30 50-50 PIV - 75 Ar	30 50 2088 2088	5 4 2 2	.73 .73 .28 .28 1.53	.66 .66 .26 .26 1.22	.48 .48 .19 .19 .71	.33 .33 .13 .13
578-3671 577-3738 577-3821 578-3821 578-3822	1N3671A 1N3738 1N3821 1N3821A 1N3822A	D0-4 D0-9 SP-33 SP-33 SP-33	S RECT S RECT S ZEN S ZEN S ZEN	1.0 1.0 1.0		PIV - 12 Ar PRV - 250 A 76.0 76.0 69.0		10 5 5	13.70 35.23 3.75 4.70 4.70	10.96 20.40 2.00 3.76 3.76	6.45 1.76 2.21 2.21	No. of the last
577-3823 578-3823 578-3825 577-3826 578-3826	1N3823 1N3823A 1N3825A 1N3826 1N3826A	SP-33 SP-33 SP-33 SP-33	S ZEN S ZEN S ZEN S ZEN	1.0 1.0 1.0 1.0	3.9 3.9 4.7 5.1	64.0 64.0 53.0 49.0	9 .9 .8 .7	10 5 5 5	3.75 4.70 4.70 3.75 4.70	3.00 3.76 3.76 3.00 3.76	1.76 2.21 2.21 1.76 2.21	THE REAL PROPERTY.
578-3828 817-9819 817-9821 817-9828 578-3995	1N3828A 1N3879 1N3881 1N3893 1N3995	SP-33	S ZEN	1.0	6.2	41.0 530	1.2	5	4.70 2.25 4.48 10.55 9.48	3.76 1.80 3.58 8.44 6.58	2.21 1.06 2.06 4.97 4.46	17/6
577-3996 578-3996 551-4001 551-4002 551-4003	1N3996 1N3996A 1N4001 1N4002 1N4003	D0-4 D0-4 SP-43 SP-43 SP-43	S ZEN S ZEN S RECT S RECT S RECT	10 10	100	490 490 PRV - 1 AI PRV - 1 A	ump to	10 5	9.48 9.45 .38 .39 .40	7.58 7.58 .35 .35 .35	4.16 4.46 .25 .25 .26	.17
551-4004	1N4004	SP-43	SRECT	1000	400	PRV - 1 A	imp to	137/133	.41	.38	.28	0.19

Discrete Devices Directory

				300	Max. Peak	100	Forward	Rec. Time		EACH	100	
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Rev. Volt	Reverse Current µA@V	Current @VF=IV mA	Nano- Sec.	1-24	25- 99	100-	1000- Up
551-4005 577-4006 577-4007 551-4009	1N4005 1N4006 1N4007 1N4009	SP-43 SP-43 SP-43 DO-7	S RECT S RECT S RECT S ZEN	.25	600 800 100 6.8	PRV - 1 A	mp to mp to Amp to 200	5	.72 .56 .63 .73	.65 .51 .57 .66	.55 .35 .47 .48	.42 .28 .32 .33
551-4086 551-4148 554-4148 551-4149 551-4150	1N4086 1N4148 1N4148JAN 1N4149 1N4150	DO-35 DO-35 DO-35 DO-35	S HCD S HCD S HCD S HCD				/ IRR 4 N S /PŒIRR 4 N IPŒRR 4 N S /P - IRR 6 N		.73 .28 .36 .30 .64	.66 .26 .33 .27 .58	.48 .19 .24 .20 .43	.33 .13 .17 .14 .30
551-4151 551-4152 551-4153 551-4154 551-4244	1N4151 1N4152 1N4153 1N4154 1N4244	D0-35 D0-35 D0-35 D0-35	S HCD S HCD S HCD S HCD	PIV S	00V - IF 50 30V - IF 50V - IF .1 PIV 25V -	mA - 1V V .155 VP 55 VP -	/P / IRR 2 N - IRR 2 N S IB¼RR 2 N IRR 2 N Sec	Sec. Sec. Sec.	.64 .64 .64 .29 2.07	.58 .58 .58 .26 1.88	.43 .43 .43 .19 1.40	.30 .30 .30 .13 .98
817-4370 817-4371 577-4372 524-2052 976-0200	1N4370 1N4371 1N4372A 1N4385 1N4436	D0-7 D0-7 D0-7 SP-50	S ZEN S ZEN S ZEN S RBR	.4 .4 .4	2.4 2.7 3.0	20 20 20 20 VRM - 10 A	30 30 29 Imps to	10 10 5	1.70 1.88 2.00 .91 5.88	1.00 1.50 1.60 .73 4.70	.84 .88 .93 .61 3.05	
976-0205 976-0210 976-0220 976-0230 976-0235	1N4436-F 1N4436-F-S 1N4436-F-T 1N4437 1N4437-F	SP-50	S RBR		400	VRM-10 Ar	nps lo		6.75 7.15 7.00 7.75 7.60	4.15 4.40 4.55 6.20 5.45	3.05 3.25 3.35 4.00 4.00	
976-0240 976-0250 976-0260 976-0265 976-0270	1N4437-F-S 1N4437-F-T 1N4438 1N4438-F 1N4438-F-S				The state of the s				8.00 7.85 10.25 10.25 10.65	5.75 5.65 7.45 7.45 7.85	4.30 4.20 5.45 5.45 5.75	The same
976-0280 551-4446 551-4448 551-4449 551-4450	1N4438/T/F 1N4446 1N4448 1N4449 1N4450	SP-52 D0-35 D0-35 D0-35 D0-35	S RBR S HCD S HCD S HCD S HCD	7 75 7	5 PIV - IF 5 PIV - IF 5 PIV - IF	20 mA - Vi 100 mA - V 30 mA - Vi	F 1 - IRR 4 F 1 - IRR 4 F 1 - IRR 4	NS NS NS	11.00 .28 .30 .30 .64	8.80 .26 .27 .27 .58	5.65 .19 .20 .20 .43	.13 .14 .14 .30
551-4454 577-4571 551-4606 551-4607 578-4728	1N4454 1N4571 1N4606 1N4607 1N4728A	D0-35 D0-7 SP-55	S HCD S ZTC	.25 ⁷	5 PIV - IF 6.4	10 mA - VF	1 - IRR 2 1 100	*.005-5 5	.28 12.13 .59 .99 1.44	.26 9.70 .54 .90 1.31	.19 5.95 .40 .67 1.03	.13 .28 .47
578-4729 578-4730 578-4731 578-4732 578-4733	1N4729A 1N4730A 1N4731A 1N4732A 1N4733A	SP-55 SP-55 SP-55 SP-55 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1.0	.6 3.9 4.3 .7 5.1	69 64 58 53 49	10 9 9 8 7	55555	1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	
578-4734 578-4735 578-4736 578-4737 578-4738	1N4734A 1N4735A 1N4736A 1N4737A 1N4738A	SP-55 SP-55 SP-55 SP-55 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1 1	5.6 6.2 6.8 7.5 8.2	45 41 37 34 31	5 2 3.5 4 4.5	55555	1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	
578-4739 578-4740 578-4742 578-4744 578-4745	1N4739A 1N4740A 1N4742A 1N4744A 1N4745A	SP-55 SP-55 SP-55 SP-55 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1 1	9.1 10 12 15 16	28 25 21 17 5.5	5 7 9 14 16	55555	1.44 1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	
578-4746 578-4747 578-4748 578-4749 578-4750	1N4746A 1N4747A 1N4748A 1N4749A 1N4750A	SP-55 SP-55 SP-55 SP-55 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1 1 1 1 1	18 20 22 24 27	14 12.5 11.5 10.5 9.5	20 22 23 25 35	55555	1.44 1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	The Royal
578-4751 578-4752 578-4753 578-4754 578-4756	1N4751A 1N4752A 1N4753A 1N4754A 1N4756A	SP-55 SP-55 SP-55 SP-55 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30 33 36 39 47	8.5 7.5 7 6.5 5.5	40 45 50 60 80	55555	1.44 1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	Town water
578-4757 578-4758 578-4759 578-4760 578-4761	1N4757A 1N4758A 1N4759A 1N4760A 1N4761A	SP-55 SP-55 SP-55 SP-44 SP-55	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	1 1 1 1 1	51 56 62 68 75	5 4.5 4 3.7 3.3	95 110 125 150 175	55555	1.44 1.44 1.44 1.44 1.44	1.31 1.31 1.31 1.31 1.31	1.03 1.03 1.03 1.03 1.03	
578-4762 578-4763 577-4764 577-4816 577-4817	1N4762A 1N4763A 1N4764A 1N4816 1N4817	SP-55 SP-55 SP-56 SP-56	S ZEN S ZEN S RECT S RECT	1	82 91 50 Volt 100 Vol	3 2.8 s VRM - 1. ts VRM - 1	200 250 5 Amps lo .5 Amps lo	5 5	1.44 1.44 3.03 .50 .55	1.31 1.31 1.90 .40 .46	1.03 1.03 1.47 .23 .27	13/20/2
577-4818 577-4821 577-4822 577-5052 577-5053	1N4818 1N4821 1N4822 1N5052 1N5053	SP-56 SP-56 SP-56 SP-56 SP-56	S RECT S RECT S RECT S RECT S RECT	1770	200 Vol	ts VRM - 1 ItsVRM - 1.	.5 Amps to	401	.65 .90 1.20 1.13 1.20	.32 .45 .96 .75 .80	.29 .40 .55 .53 .57	
577-5054	1N5054	SP-56	S RECT	16 26 19	1000 Vo	Its VRM - 1	1.5 Amps to		1.43	1.14	.66	

A Charles	0127			Divi	Zener Volt-	Zener Test	Zener Test	Toi.		EACH		
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	age Volts	Current mA	Imped. Ohms	%	1-24	25- 99	100- 999	1000 Up
578-5521 578-5222 578-5223 578-5224	1N5221B 1N5222B 1N5223B 1N5224B	DO-7	S ZEN	.5	2.4	20	30	5	.69 .69 .69	.63 .63 .63	.44 .44 .44	
578-5226 578-5227 578-5228 578-5229 578-5230	1N5226B 1N5227B 1N5228B 1N5229B 1N5230B	D0-7 D0-7	S ZEN S ZEN	.5	3.3 3.6	20 20 20	28 24	5 5	.69 .69 .69	.63 .63 .63 .63	44444	
578-5231 578-5232 578-5233 578-5235 578-5236	1N5231B 1N5232B 1N5233B 1N5235B 1N5236B	00-7 00-7 00-7	S ZEN S ZEN S ZEN S ZEN	.5 .5 .5	5.1 5.6 6 7.5	20 20 20 20	7 11 9	5 20 5	.69 .69 .69 .69	.63 .63 .63 .63	.44 .44 .44 .44	
578-5238 578-5240 578-5241 578-5242 578-5243	1N5238B 1N5240B 1N5241B 1N5242B 1N5242B	D0-7 D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN S ZEN	.5 .5 .5	10 11 12 13	20 20 20 9.5	17 22 30 13	5 5 5 5	.69 .69 .69 .69	.63 .63 .63 .63	44 44 44 44 44 44 44 44 44 44 44 44 44	
578-5244 578-5245 578-5249 578-5251 578-5552	1N52448 1N52458 1N52498 1N52518 1N52528	D0-7 D0-7 D0-7	S ZEN S ZEN S ZEN	.5 .5	14 22 24	9 5.6 5.2	15 29 33	5 10	.69 .69 .69 .69	.63 .63 .63 .63 .63	.44 .44 .44 .44	-
578-5253 578-5254 578-5255 578-5256 578-5257	1N5253B 1N5254B 1N5255B 1N5256B 1N5257B	D0-7	S ZEN SZEN	.5	27	4.6	41 49	5 20	.69 .69 .69	.63 .63 .63 .63	.44 .44 .44 .44	

Discrete Devices Directory

Stock Number	Туре	Case	Mat. Funct.	Dissi- pation	Zener Volt- age	Zener Test Current	Zener Test Imped.	Tol.	1-	EACH 25-	100-	1000-
578-5333 578-5334 578-5335 578-5336 578-5337	1N5333B 1N5334B 1N5335B 1N5336B 1N5337B	SP-60 SP-60 SP-60 SP-60 SP-60	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3 3 3 6 3 9 4 3 4 7	380 350 320 290 260	3 2.5 2 2 2 2	10 5 5 5	24 2.43 2.43 2.43 2.43 2.13	99 2.21 2.21 2.21 2.21 2.21 2.21	999 1.66 1.66 1.66 1.66	Up
578-5338 578-5340 578-5341 578-5342 578-5343	1N5338B 1N5340B 1N5341B 1N5342B 1N5343B	SP-60 SP-60 SP-60 SP-60 SP-60	S ZEN S ZEN S ZEN S ZEN S ZEN S ZEN	5 5 5 5 5	5 1 6 6 2 6 8 7 5	240 200 200 175 175	1 5 1 1 1 1 5	5 5 5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5344 578-5345 578-5347 578-5348 578-5349	1N5344B 1N5345B 1N5347B 1N5348B 1N5349B	SP-60 SP 60 SP-60 SP 60 SP-60	S ZEN S ZEN S ZEN S ZEN S ZEN	5 5 5 5 5	8 2 8 7 10 11 12	150 150 125 125 120	1 5 2 2 2 5 2 5	5 5 5 5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5350 578-5351 578-5353 578-5354 578-5355	1N5350B 1N5351B 1N5353B 1N5354B 1N5355B	SP-60 SP-60	S ZEN S ZEN S ZEN	5 5	13 14 17	100 100 70	2 5 2 5 2 5	5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5356 578-5358 578-5359 578-5360 578-5361	1N5356B 1N5358B 1N5359B 1N5360B 1N5361B	SP-60 SP-60	S ZEN S ZEN	5	24 27	50 50	3 5 5 0	5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5362 578-5363 578-5364 578-5365 578-5366	1N5362B 1N5363B 1N5364B 1N5365B 1N5366B	SP 60 SP-60 SP-60 SP-60	S ZEN S ZEN S ZEN S ZEN	5 5 5 5	30 33 36 39	40 40 30 30	8 10 11 14	5 5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5367 578-5368 578-5369 578-5370 578-5371	1N5367B 1N5368B 1N5369B 1N5370B 1N5371B	SP-60 SP-60 SP-60 SP-60	S ZEN S ZEN S ZEN S ZEN	5 5 5 5	47 51 56 60	25 25 20 20	25 27 35 40	5 5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5372 578-5373 578-5374 578-5375 578-5376	1N5372B 1N5373B 1N5374B 1N5375B 1N5376B	SP-60 SP-60 SP-60 SP-60 SP-60	S ZEN S ZEN S ZEN S ZEN S ZEN	5 5 5 5	62 68 75 82 87	20 20 20 15 15	42 44 45 65 75	5 5 5 5 5	2.43 2.43 2.43 2.43 2.43	2.21 2.21 2.21 2.21 2.21 2.21	1.66 1.66 1.66 1.66 1.66	
578-5377 578-5378 551-5390	1N53778 1N5378B 1N5390	SP 60 SP-60	S ZEN S ZEN	5 5	91 100	15 12	75 90	5 5	2.43 2.43 2.07	2.21 2.21 1.88	1.66 1.66 1.40	.98

				M ₂	ximum Rat	inne	Beta Hr	:@le				
Stock	Туре	Case	Mat.	Dissi-	Col't'r	Col't'r	Min	mA		EACH	4	
Number			Funct.	pation Walls	to Base Volts	Curr. mA	Max.		1- 24	25- 99	100- 999	1000- Up
555-3011 587-0502	2N301 2N502	TO-18 T-09	SN SH GP AV	360 06	30 20	200 50	30-120 65	10	.71 6.13	.57 6.00	.36 4.09	.31
555-0656 555-0657 580-0681 579-0684 579-0688	2N656 2N657 2N681 2N684 2N688	TO-5 TO-48 TO-48	SN AP SN AP SCR SCR	8		M - 16 Amp VRM - 16 A	30-90 30-90 IS RMX IF Amps RMs I	2 2	2.25 1.78 4.83 9.00 13.53	1.45 1.62 3.86 7.20 10.82	1.01 2.22 4.14 6.22	.88
579 0689 579-0690 579-0692 555-0696 555-0697	2N689 2N690 2N692 2N696 2N697	TO-48 TO-5 TO-5	SCR SN GP SN GP	600 600	720 Vults 60 60	VRM - 16 A	20-60 40-120	150 150	11.40 12.71 22.55 .57 .80	8.89 10.12 20.11 .52 .73	7 65 8.77 15 82 .40 .49	.37
555-0698 555-0699 552-0706 555-0709 555-0718	2N698 2N699 2N706A 2N709 2N718	T0-5 T0-5 T0-18 T0-18 F0-18	SN GP SN GP SN SH SN SH SN GP	800 800 300 300 400	60 120 25 15 60	150 150	20-60 40-120 20-60 30-120 40-120	150 150 10 10 10 150	1.73 1.25 .53 .95 .51	1.57 1.14 .48 .86 .46	1.05 .71 .30 .53 .32	.99 .62 .26 .46 .28
552-0718 556-0719 555-0720 555-0722 555-0834	2N718A 2N719A 2N720A 2N722 2N834	TO-18 TO-18 TO-18 TO-18	SN GP SN GP SP GP SN SH	400 400 400 300	75 120 50 30		40-120 40-120 30-90 25	150	.66 1.57 1.65 1.50 .59	.60 1.43 1.32 1.37 .54	.37 .89 .85 .85	.33 .77 .74 .30
555-0835 555-0869 555-0914 555-0917 555-0918	2N835 2N869 2N914 2N917 2N918	T0-18 T0-18 T0-18 T0-72 T0-72	SN SH SP GP SN SH SN AU SN AU	300 360 500 200 200	25 25 40 30 30	200 500 50 50	20 20 30-120	10 10 10	.75 1.79 .53 .78 .81	.68 1.43 .49 .71 .74	.43 .89 .30 .46 .46	.37 .26 .40 .40
555-0929 555-0930 555-1132 556-1132 587-1499	2N929 2N930 2N1132 2N1132A 2N1499A	TO-18 10-18 10-39 TO-5 TO-39	SN LN SN LN SP SH SP SH GP SH	600 600 600 600 060	45 45 50 50 20	150 100 100	40-120 100-300 30-90 30-90 50	01 01 150 150 40	.89 .50 .78 2.53 4.00	.81 .46 .71 2.30 3.20	.50 .29 .45 1.42 2.67	.44 .25 .39 1.23
579-1595 579-1596 579-1597 579-1600 579-1602	2N1595 2N1596 2N1597 2N1600 2N1602	T0-5 T0-5	SCR SCR				- 10 mA Ma - 10 mA M		1.74 2.18 2.63 7.75 11.38	1.58 1.97 2.36 6.20 9.10	1.10 1.38 1.66 3.68 5.34	
579-1603 555-1613 555-1711 587-1742 587-1744	2N1603 2N1613 2N1711 2N1742 2N1744	T0-5 T0-5 T0-5 T0-9 T0-9	SCR SN GP SN GP GP AH GP AH	300 .800 5C 060 060	Volts PIV - 75 75 20 20	3 Amp Av. 1A 1A 50 50	- 10 mA M 40-120 100-300 10 10	150 150 2 2	12.75 .85 .88 5.38 4.13	10.20 .77 .80 4.30 3.30	6.01 .51 .53 3.59 2.96	.41
587-1746	2N1746	TO-9	GP AH	060	20	50	10	2	2.88	2 30	1 92	

				h	faximum Ratin	gs		EAC	н	
Stock Number	Case	Туре	Material Function	Peak Repetitive Volts	Forward Current Rms Amps	Required Gate Current mA	1 24	25- 99	100- 999	1000- Up
579-1771 579-1772 580-1774 579-1775	2N1771 2N1772 2N1774A 2N1775	TO-64 TO-64 TO 64	SCR SCR SCR	100 200 250	6 7 4 6	15 15 15	4.43 4.70 9.93 9.98	3.54 3.76 7.94 7.98	2.10 2.21 4.75 4.68	
580-1775 579-1776 580-1776 580-1777 579-1778	2N1775A 2N1776 2N1776A 2N1777A 2N17778	TO-64 TO-64 TO-64 TO-64	SCR SCR SCR SCR	250 300 400 500	7 4 7 4 7 4 6	15 15 15 15	11.88 11.15 12.98 14.75 11.26		5.57 5.24 6.23 6.95 7.17	
579-1792 579-1793 579-1794 588-1846	2N1792 2N1793 2N1794 2N1846A	TO-83 TO-83 TO-83 TO-48	SCR SCR SCR SCR	50 100 150 200	110 110 110 110	70 70 70 70 45	21.00 23.10 25.20 9.20	14.61	4.23	

SEE PAGE 16 FOR INTEGRATED CIRCUITS

		1	NTEG	RATE	D CIF	CUIT	S			DISCR DEVII		
					imum Rat		Bela Hr					
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Col't'r to Base	Col't'r Curr. mA	Min. Max.	mA	1-	EACH 25-	190-	1000-
580-1847 580-1848	2N1847A 2N1848A	T0-48	SCR SCR		Volts 250 300		6 .	45 ·	9.80 10.53	7.84 8.42	999 4.51 4.84	Up
580-1848 579-1849 555-1893 579-1913 555-1974	2N1848A 2N1849 2N1893 2N1913 2N1974	TO-5 TO-83 TO-5	SN GP SCR SN GP	8 200	120	0 Amps Ri	40-120 MS Io - 75 m 40-100	150 A IGT	10.53 12.13 .95 27.30	8.42 9.70 .86 17.37	4.84 5.58 .53	.46
555-1983 555-1990 555-1991	2N1983 2N1990 2N1991	TO-5 TO-5	SN GP SN GP	80 60	60 30		75 20	5 10 30	1.76 1.51 1.88	1.60 1.37 1.71	.99 .85 1.06	.85 .74 .92
579-2078 587-2048 555-2060 555-2194	2N2028 2M2048 2N2060 2N2194	T0-94 T0-9 T0-77 T0-5	SCR GP SH SN AD SN AH	250 I 150 600 800	PRV - 110 20 60 60	Amps RM 100 500 1A	S to - 70 mA 50- 30-90 15	10 10 1 10	40.95 3.55 6.90 2.87	25.91 2.84 4.10 1.75	2.37	1.02
555-2195 555-2217 555-2218 556-2218 555-2219	2N2195 2N2217 2N2218 2N2218A 2N2219	T0-5 T0-5 T0-5 T0-5 T0-5	SN AH SN SH SN SH SN SH SN SH	800 800 800 800 800	45 60 60 75 60	1A 800 800 800 800	20 12 25 340-120 100-300	150 1 1 150 150	1.10 5.25 .77 .80 .80	1.00 3.50 .70 .73 .73	.62 .47 .49 .49	.54 .37 .39 .39
556-2219 555-2221 555-2222 555-2223 556-2223	2N2219A 2N2221 2N2222 2N2223 2N2223A	T0-5 T0-18 T0-18 T0-77 T0-77	SN SH SN SH SN SH SN DA SN DA	800 800 500 600 600	75 60 60 60 60	800 800 800 500 500	100-300 40-120 100-300 40-200 40-200	150 150 150 1	.85 .58 .58 5.25 6.35	.77 .53 .53 4.30 5.30	.51 .35 .35 2.85 3.50	.41 .28 .28 2.60 3.20
555-2270 555-2303 579-2322 587-2362	2N2270 2N2303 2N2322 2N2362	T0-5 T0-5	SN AR SP SH GP AU	1 600 06	60 50	1A 500	50-200 75-200 33	150 150	.90 3.03 1.58 3.88	.82 2.75 1.10 3.10	.55 1.70 2.58	.51 1.48
555-2368 555-2369 587-2398 587-2402 555-2405	2N2369A 2N2369A 2N2398 2N2402 2N2405	T0-18 T0-18 T0-12 T0-18 T0-5	SN AU SN AU GP AU GP AV SN AP	360 360 06 150	40 40 20 12 120	200 100 1A	40 33 6-0 60-200	10 2 10 10 150	.66 7.38 7.63 1.54	.49 .60 5.90 6.10 1.40	.40 4.93 5.09 .87	.32
555-2475 555-2477 555-2481 555-2483	2N2475 2N2477 2N2481 2N2483	TO-18 TO-18	SN AU SN SH SN SH	300 600 600	15 60 40		50 40 40-120	150	1.41 1.32 .69 .73	1.28 1.20 .63 .56	.80 .74 42 .41	.69 .65 .33 .36
579-2619	2N2484 2N2619 2N2639	TO-18 TO-64	SN GL SCR SN AD	600 300	60 600PRV	- 6A Io -	80 15 mA I× .	1U	.56 12.20 % 8.25	.51 12.30 7.00	32 8.61 4.70	4.23
555-2640 555-2641 555-2642 587-2711	2N2640 2N2641 2N2642 2N2711	10-77 10-77 10-77 10-77 10-18	SN AD SN DA SN AD SN GP	300 30AD 300 200	45 45 45 18	30 30 30 100	50-300 50-300 10-300 30-90	10U-209 10U-109 10U-109 2	6.00 6 3.60 6 10.18 .65	5.00 3.00 8.50 .52	3.35 2.00 5.65 .43	3.00 1.80 5.09
587-2712 587-2714 555-2894 555-2904	2N2712 2N2714 2N2894 2N2904	TO-18 TO-18 TO-18 TO-5	SN GP SN GP SP SH SP GP	200 200 1 20 600	18 18 12 60	100 200 200 650	75 225 75-225 40-150 40-120	2 2 30 150	.65 .68 .75 .68	.52 .54 .68 .54	.43 .45 .43 .34	.37
556-2904 555-2905 556-2905 555-2906 555-2907	2N2904A 2N2905 2N2905A 2N2906 2N2907	TO-5 TO-5 TO-5 TO 18 TO-18	SP GP SP GP SP GP SP GP	600 600 600 400 400	60 60 60 60	650 600 600 600 6000	40-120 100-300 100-300 40-120 40-100	150 150 150 150 150	.70 .80 .88 .54	.73 .73 .80 .43	.49 .49 .53 .27 .35	.49 .39 .43 .23 .28
556-2907 555-2913 555-2914 555-2915 587-2924	2N2907A 2N2913 2N2914 2N2915 2N2924	TO-18 TO-77 TO-77 TO-77 TO-98	SP GP SN DT SN DT SN AD SN GP	400 300 300 300 300 200	60 45 45 45 25	600 30 30 30 30 100	40-100 60-240 150-600 60-240 150	150 01 01 01 2	.66 1.60 2.81 4.73 .55	.60 1.45 2.25 4.30 .44	.40 .88 1.40 2.65 .37	.32 .77 1.25 2.30
587-2925 587-2926 587-2946 555-2958 555-3009	2N2925 2N2926 2N2946 2N2958 2N3009	TO 98 TO-98 TO 46 TO-5 TO-52	SN GP SN GP SP SM SN GP SN SH	200 200 400 600 360	25 18 40 60 40	100 100 100 600 200	235 470 30-150 40-120 30-120	2 2 1 150 30	.65 .50 9.20 2.75 1.00	.52 .40 7.36 2.50 .91	.43 .33 6.15 1.50	1.36
555-3014 555-3015 555-3019 555-3020 555-3053	2N3014 2N3015 2N3019 2N3020 2N3053	T0-52 T0-5 T0-5	SN SH SN SH SN GP SN AP	360 800 800 5C	40 60 140	200 1A 700	30-120 30-120 100-300 50-250	30 150 150 150	1.10 .95 2.75 1.78 .80	1.00 .86 2.50 1.62 .73	.62 .53 1.67 1.01 .49	.54 .46 1.33 .88 .39
555-3054 555-3055 555-3114 555-3133 555-3250	2N3054 2N3055 2N3114 2N3133 2N3250	T0-66 T0-3 T0-5 T0-5 T0-18	SN AP SN AP SN GP SP SH SP SH	25C 117C 800C 600 360	90 100 150 50	4A 15A 200 600 200	25-100 20-70 30-120 40-120 50-150	500 4A 30 150 10	1.21 1.75 2.50 1.38 .74	1.10 1.42 2.28 1.25 .67	.82 1.05 1.42 .78	.68 .92 1.23 .68 .35
556-3250 555-3251 555-3252 555-3253 555-3299	2N3250A 2N3251 2N3252 2N3253 2N3299	TO-18 TO-5 TO-5 TO-5	SP SH SN AP SN AP SN SH	360 1 1 800	50 30 40 60	200 1A 1A 500	100-300 30-90 25-75 40-120	10 500 375 150	.96 .80 3.30 3.61 1.13	.88 .73 3.00 3.28 1.03	.55 .49 1.86 2.04 .64	.48 .39 1.62 1.77 .55
555-3301 555-3302 587-3391 588-3391 587-3392	2N3301 2N3302 2N3391 2N3391A 2N3392	TO-18 TO-18 TO-98 TO-98 TO-98	SN SH SN SH SN GP SN GP SN GP	360 360 200 200 200	60 60 25 25 25	500 50 100 100 100	40-120 100-300 25 250 150	150 150 2 2 2	.65 1.32 .65 .75	.60 1.20 .52 .60 .42	.37 .74 .43 .50	.65
587-3393 587-3394 587-3395 587-3396 587-3398	2N3393 2N3394 2N3395 2N3396 2N3398	T0-98 T0-98 T0-98 T0-98 T0-98	SN GP SN GP SN GP SNGP SN GP	200 200 200 200 200 200	25 25 25 25 25 25	100 100 100 100 100	90 55 150 90 55	2 2 2 2 2	.53 .53 .65 .53	.42 .42 .52 .42 .28	.35 .35 .43 .35 .20	.16
587-3402 587-3403 587-3404 587-3405 587-3414	2N3402 2N3403 2N3404 2N3405 2N3414	TO-98 TO-98 TO-98 TO-98 TO-98	SN GP SN GP SN GP SN GP SN GP	200 200 200 200 200 360	25 25 25 25 25 25	100 200 100 100 500	75 180 75 100 75	2 2 2 2 2 2	63 .65 .85 1.05	.50 .52 .68 .84	.42 .43 .57 .70	
587-3415 587-3416 587-3417 555-3439 555-3440	2N3415 2N3416 2N3417 2N3439 2N3440	TO-98 TO-98 SP-16 TO-5 TO-5	SN GP SN GP SN GP SN AP SN AP	360 360 360 10C	25 50 50 450 300	500 500 500 1A 1A	180 75 100 40-60 40-60	2 2 2 20 20	.53 .75 .93 2 20 1.49	.42 .60 .74 2.00 1.39	.35 .50 .62 1.35	1.12
555-3444 555-3467 555-3495 555-3504 555-3563	2N3444 2N3467 2N3495 2N3504 2N3563	T0-5 T0-5 T0-5 T0-18 T0-106	SN AP SP AP SP AV SP GP SN AV	25C 1C 600 400 200	80 40 120 45 30	1A 1A 100 600 50	20-60 40-120 40 115-300	500 500 10 50	4.46 3.30 13.75 1.85	4.05 3.00 12.75 1.68 .29	2.50 1.86 8.50 1.04 .18	2.20 1.62 8.25 .91 .15
555-3564 555-3565 555-3566 555-3567 555-3568	2N3564 2N3565 2N3566 2N3567 2N3568	TO-10 TO-106 TO-105 TO-105 TO-105	SN AV SN AL SN GP SN GP SN GP	200 200 300 300 300	30 30 40 80 80	100 50 200 500 500	150-600 150-600 60-120 40-120	1 10 150 150	.34 .25 .31 .28	.31 .23 .29 .26 .37	.20 .14 .18 .16 .23	.17 .12 .15 .14 .20
555-3569 555-3636 555-3638 556-3638 555-3639	2N3569 2N3636 2N3638 2N3638A 2N3639	T0-105 T0-5 T0-105 T0-105 T0-106	SN GP SN SP SP SH SP SH SP SH	300 1 300 300 200	80 175 25 25 6	500 1A 500 500	100-300 50-150 100 100 30-120	150 50 50 50 50	.39 15.68 .28 .31 .39	.31 14.25 .26 .29 .36	.20 8.85 .16 .18	.17 7.70 .14 .15 .19
555-3640	2N3640	TO-106	SP SH	200	12		30-120	10	.47	.43	.27	.23

SEE PAGE 16 FOR INTEGRATED CIRCUITS

	VICES					CIRCL						
Stock	Type	Case	Mat	Dissi-	Col't r	Colitr	Beta Ha	@lc mA		EACH		
Number			Funct	patron Watts	to Base Volts	Curr mA	Max.		1-24	25- 99	100- 999	1000- Up
555-3641 555-3642 555-3643 555-3644	2N3641 2N3642 2N3643 2N3644	T0-105 T0-105 T0-105 T0-105	SN GP SN GP SN GP SN GP SP SH	350 350 350 300	50 60 60 45	500 506 50u 500	40-120 40-120 130-300 115-300	150 50 150 50	.34 .34 .34 .37	32 32 .32 .34	20 .20 .20 .21	17 17 17 19
555-3644 555-3645 555-3646 555-3690 555-3693	2N3644 2N3645 2N3646 2N3690 2N3693	T0-105 T0-145 T0-106 T0-106 T0-166	SP SH SP SH SN SH SN AV SN GP	300 300 200 200 200 200	45 60 40 40 46	500 500 200 30 30	115-390 115-300 30-120 30 40	50 50 30 10	37 37 31 54 .56	34 .34 29 .50 .51	.21 21 18 .31 .32	19 19 15 .27 28
555-3694 555-3700 555-3714 555-3715 555-3716	2N3694 2N3700 2N3714 2N3715 2N3716	TO-106 TO-3 TO-3 TO-3	SN GP SN AP SN AP SN AP	200 *500 *500 *500	45 100 80 100	104 104 104	100 400 25 75 50-150 50 150	24 24 24 24	56 2.35 2.00 2.75 3.41	51 2 05 1 04 2 35 3 10	32 1.27 1.26 1.55 2.05	.28 1 10 1.07 1.30 1.71
555-3725 555-3740 555-3741 555-3743 555-3766	2N3725 2N3740 2N3741 2N3743 2N3766	T0-66 T0-66 T0-5 T0-66	SP AP SP AP SP AP SN AP	250 250 200	60 80 300 80	1 A 1 A 50 1 A	30-100 30-100 25-250 40-160	50 250 30 500	1.03 2 25 2.31 13.86 1 78	.94 1.80 2.10 12.60 1 62	.58 1.20 1.40 8 40 1 20	.51 1.00 1.16 7.30 1.04
555-3767 555-3771 555-3772 555-3789 555-3790	2N3767 2N3771 2N3772 2N3789 2N3790	T0-66 T0-3 T0-39 T0-3 T0-3	SN AP SN AP SN AP SN AP SP AP	200 • 500 • 500 • 600 • 500	100 50 100 60 80	"A 30A 304 10A 10A	4 160 15-60 15-60 25-90 25-90	500 15A 15A 1A	2.10 5.00 5.00 4.56 4.68	1.83 4.13 4.13 3.65 4.25	1.35 3 00 3 00 2.45 2 85	1 18 2 5 2 5 2 03 2 36
555-3791 555-3792 555-3806 588-3843 587-3856	2N3791 2N3792 2N3806 2N3843A 2N3856	T0-3 T0-3 T0-77 T0-98 T0-98	SP AP SP AP SP DT SN GP SN GP	*500 *500 600 200 200	80 80 60 30 18	10A 19A 50 108 100	25-180 50-180 150-450 40 100-700	°Д °А °С 2	4.62 5.12 5.13 .73 .58	4 20 4 65 4 30 .58 .46	2 80 3 10 2 85 .48 .38	2 32 2 57 2.55
588-3856 588-3858 587-3859 588-3859 587-3860	2N3856A 2N3858A 2N3859 2N3859A 2N3860	T0-98 T0-98 T0-98 T0-98 T0-98	SN 3P SN 3P SN 3P SN 3P SN 3P	200 200 200 200 200 200	30 30 60 50 30	100 100 100 100 100	100-200 100-200 100-200 150 300	ONAMBE	50 58 50 58 55	.48 46 40 46 44	40 38 33 38 37	
587-3877 588-3877 555-3880 588-3900 555-3903	2N3877 2N3877A 2N3880 2N3900A 2N3903	TG-98 TO-98 TO-5 TO-98 TO-92	SN GP SN GP SN SH	200 200 200 310	73 85 18 60	50 50 4 Wave-UHI 100 200	20 20 F-Small Sign 170 50	2 2 1al 2	.75 .83 7.20 .65 .56	60 .66 4.00 .52 51	50 .55 3.55 .43 32	2.40
555-3904 555-3905 555-3906 555-3923 555-3947	2N3904 2N3905 2N3906 2N3923 2N3947	T0-92 T0-92 T0-92	SA 54 SP 5- SP 5-	313 310 313	60 40 40	200 200 200	* 00 50 * 00		56 58 58 4 40 2 47	51 53 53 4 00 2 25	32 33 .33 2.50 1 40	28 29 29 2 15 1 32
587-3976 555-4014 555-4030 555-4033 555-4035	2N3976 2N4014 2N4030 2N4033 2N4035	TO-98	SN GP	.360	60	400	50	150	.68 2.04 .99 1.45 2.20	.54 1.85 .90 1 32 2 00	.45 1.15 .61 88 1.24	1.00 .54 77 1 08
555-4121 555-4122 555-4123 555-4124 555-4125	2N4121 2N4122 2N4123 2N4124 2N4125	T0-106 T0-106 T0-92 T0-92 T0-92	SP GP SP GP SN GP SN GP SP GP	200 200 310 310 310	40 40 40 30 30	100 100 200 200 200	76-200 150-300 50 120- 50	1道 • 9 2 2 2	31 34 37 37 37	29 31 34 34 34	18 20 21 21 21	.15 .17 .19 19
555-4126 555-4209 555-4221 555-4233 555-4234	2N4126 2N4209 2N4221 2N4233 2N4234	T0-92 T0-72 T0-66 T0-5	SP GP SN FE SN AP SP AP	.310 35C	25 30 Volt BV 80 40	200 /dss - 15 m 3A 1	120 1A 10 34 VP 1 25-100 30-150	2 0 1.5A 250	37 4.40 1.43 2.04 1.98	34 4 00 1.14 1 85 1 80	21 2 58 .71 1 25 1 20	.19 2.15 .62 1 04 1 00
555-4235 555-4236 555-4237 555-4238 555-4239	2N4235 2N4236 2N4237 2N4238 2N4239	TO-5 SP AP TO-5 TO-5 TZ-5	SPAP SP AP SN GP SN GP SN GP	800 300 800	60 80 50 80 106	1 1A 1A	30 30-150 30 30 30	250 250 150 100 100	2.31 2.53 1.49 1.82 1.98	2.10 2.30 1.35 1.65 1.80	1.40 1.55 90 1 10 1.20	1.16 1.28 75 91 1.00
555-4248 555-4249 555-4250 556-4250 555-4258	2N4248 2N4249 2N4250 2N4250A 2N4258						:		.25 .31 .37 .55	.23 .29 .34 .50	.14 .18 .21 .31 .32	.12 .15 .19 .27 .28
556-4258 555-4264 555-4265 555-4274 555-4275	2N4258A 2N4264 2N4265 2N4274 2N4275	TO-92 TO-92	SN A SN SH	.310 310	30 30	200 200	40 100	10 10	.63 .50 .57 .31	.57 .45 .52 .29 .29	.36 .28 .33 .18	.31 .24 .28 .15
555-4354 555-4355 555-4356 587-4383 555-4398	2N4354 2N4355 2N4356 2N4383 2N4398	T0-5 T0-3	SN AV SP AP	800 200C	40 40	800 30A	15-16	15A	.51 .56 .56 1.75 9.58	.46 .51 .51 1.40 6.75	.29 .32 .32 1.17 5.00	.25 .28 .28 4.50
555-4399 555-4400 555-4401 555-4402 555-4403	2N4399 2N4400 2N4401 2N4402 2N4403	T0-3 T0-92 T0-92 T0-92 T0-92	SP AP SN GP SN GP SP GP SP GP	200C .310 .310 .310 .310	60 60 60 40 40	30A 600 600 600 600	15-60 20 40 30 60	15A 10 10 10 10	11.80 .63 .78 .63	8.75 .57 .71 .57 .71	6.50 .36 .45 .36 .45	6.00 .31 .39 .31 .39
555-4410 555-4416 587-4424 555-4888 555-4889	2N4410 2N4416 2N4424 2N4888 2N4889	T0-92 T0-72 T0-98	SN GP SN FE SN GP	310 366	120 0 Volt VD: 40	250 lss - 10 m/ 500	400 1G - 6 V V 180	10 plp 2	.99 1.98 65 57 .81	.90 1.80 52 .52 .74	.56 1.12 .30 32 46	.49 .97 .28 .40
555-4896 555-4898 555-4900 555-4904 555-4905	2N4896 2N4898 2N4900 2N4904 2N4905	T0-5 T0-66 T0-66 T0-3 T0-3	SP AP SP AP SP AP SP AP	25C 25C 87C 87C	40 60 40 60	PN-MET 60 1A 1A 5A 5A	20-100 20-100 20-100 25-100 25-100	500 500 2.5 2.5	.81 1.65 2.31 2.70 3.61	.74 1.50 2.10 2.31 3.08	.48 1.00 1.40 1.71 2.28	.49 .83 1.16 1.50 2.00
555-4906 555-4911 555-4913 555-4915 555-4916	2N4906 2N4911 2N4913 2N4915 2N4916	T0-3 T0-66 T0-3 T0-3 T0-106	SP AP SN AP SN AP SN AP SPAV	87C 25C 88C 88C 200	80 60 40 80 30	5A 1A 5A 5A 100	25: 100 20-100 25-100 25-100 60	2 5 500 2 5A 2.5A 10	4 50 1 32 1.90 2.31 .34	3 85 1 20 1.73 2.10	2 85 80 1.20 1.40 .20	2.50 67 1.00 1.16 .17
555-4917 555-5055 555-5069 555-5086 555-5087	2N4917 2N5055 2N5069 2N5086 2N5087	T0-106 T0-3 T-92 T0-92	SP AV SN AP SP GP SP GP	.200 980 310 310	30 80 50 50	100 5A 50 50	20-80 150- 250	10 `A	.37 47 2.00 .78 .84	.34 .43 1 64 71 .76	.21 27 1 26 .45 .47	.19 .23 1 07 .39 .41
555-5088 555-5089 555-5128 555-5129 555-5130	2N5088 2N5089 2N5128 2N5129 2N5130	T0-92 T0-92 T0-166 T0-106	SN GP SN GP SN AV SN AV SN AV	310 310 200 300 200	35 30 15 15	50 50 500 500 500	350 450 35 35 12	1 50 50 8	78 1.02 .22 .26 .22	.71 .93 .20 .23	45 .58 .12 .14 .12	.39 50 .11 .12 .11
555-5132 555-5133 555-5134 555-5135 555-5136	2N5132 2N5133 2N5134 2N5135 2N5136	T0-106 T0-106 T0-106 T0-106 T0-105	SN AV SN AV SN AV SN AV SN AV	200 200 200 200 .300 220	20 20 20 30 30	30 50 100 200 500	20 50 150 50 20	10 1 10 10 10 150	.22 .22 .22 .22 .22 .25	.28 .20 .20 .20 .23	.12 .12 .12 .12	

Discrete Devices Directory

				Max	imum Ra	tings	Beta Hi	୍ଡୋଟ ା				
Stock Number	Туре	Case	Mat. Funct.	Dissi- pation Watts	Coll r to Base Volts	Col't'r Curr mA	Min Max	mA	1-	25- 99	100- 999	1000 Up
555-5138 587-5172 555-5209 555-5210 555-5220	2N5138 2N5172 2N5209 2N5210 2N5220	TO-98 TO-92 TO-92 TO-92	SN GP SN GP SN GP SN GP	.200 .310 .310 .310	25 50 5	100 50 50 50 500	100 150 250 30	10 1 1 50	.22 .50 .68 .76	.20 .48 .62 .69 .29	.12 .33 .39 .43	.1
555-5223 555-5224 555-5226 555-5302	2N5223 2N5224 2N5226 2N5301 2N5302	TO-92 TO-92	SN GP SN GP	3°G 310	25 25	100 100	50 4	2	.30 .24 .31 5.78 6.27	.24 .21 .29 5.25 5.70	.15 .13 .18 3.50 3.80	.1 1 2.9 3.1
55-5321 55-5400 55-540° 55-5456	2N5321 2N5400 2N5401 2N5456	Ť0-5	SN AP	100	75	2A	40-250	500	1.13 .83 1.00 3.30	.91 .75 .91 3.00	.66 .49 .59 1.86	1.6
555-5457 555-5458 555-5459 555-5624 555-5632	2N5457 2N5458 2N5459 2N5629 2N5632	T03 T03			NJ NJ	F PLA 25V I F PLA 25V I F PLA 25V I NPN MET 10 PN MET 10	Amp Amp wr	.80 .71 .80 6.70 6.40	.72 .65 .72 3.65 3.20	.49 .44 .49 3.25 2.75	3.0	
555-5668 555-5669 555-5670 555-572 555-5830	2N5668 2N5669 2N5670 2N5772 2N5830				NJ	FPLA 25V	N-CH J-FET : N-CH J-FET N-CH J-FET :	Amp	95 .86 .95 .31 .64	.85 .79 .85 .29	.58 .52 .53 .18 .36	7 7 7 7 7
555-5832 555-5833 555-5845 555-5965 555-6121	2N5832 2N5833 2N5845 2N5965 2N6121	TO-220				NPN.Pwr	45V 4A 40W		.77 .88 .78 .88 1.15	.70 .80 .71 .80 .85	.43 .50 .45 .50	3 4 44
555-6°22 555-6°23 555-6°24 555-6°25 555-6°25	2N6122 2N6123 2N6124 2N6125 2N6126	T0-220 T0-220 T0-220 T0-220 T0-220				NPN Pwr	60v 4A 40W 80v 4A 40W 45v 4A 40W 60v 4A 40W 80v 4A 40W		1.25 1.47 1.25 1.45 1.47	.90 .95 .90 .95 1.05	.66 .71 .60 .71	1
555-6129 555-6130 555-6131 555-6132 555-6133	2N6129 2N6130 2N6131 2N6132 2N6133	TO-220 TO-220 TO-220 TO-220				NPN Pwr	40V 7A 50W 60V 7A 50W 80V 7A 50W 40V 7A 50W 60V 7A 50W		1.50 1.70 1.90 1.70 1.90	1.10 1.20 1.35 1.20 1.35	.80 90 1.00 .90 1.00	.1
555-6134	2N6134	TC-220			1	PNP PAr	80V TA 50W		2.10	1.50	1.10	1

Stock	Type	Case	Material	Specifications		EA	СН	
No.			Function	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1- 24	25- 99	100- 999	1000- Up
817-7662 925-5022 817-8893 817-8901 817-8902	B18 D29A4 DD170 DD175 DD176	SP-39 SP-16	S RECT SP GP	25 Volts RMS to 225 Watt Dis	1.90 .70 2.63 4.20 2.10	1.41 56 2.10 3.36 1.68	.95 .47 1.44	
817-8903 817-9802 817-8904 817-8905 617-8906	DD177 DK22 E75L E150L E300L	SP 478	SL REC	130 PRV - 300 Amp RMS to	2.63 35.45 .82 1.38 1.98	2.10 .50 1.10 1.58	.45 .80 .93	
617-7694 817-7696 556-9999 916-5512 916-4016	E500L E650L EN2905 F2 IN2482 F8	SP-47D	SL REC	130 PRV - 650 Amp RMS to	2.50 4 00 .51 .41 90	1 72 3.20 .47 .33 .82	1.27 2.40 .29 .27 .60	.26
551-7200 551-7200 555-9100 551-7490 551-7520	FD100 FD300 FD666 FD700 - FD777	DO-7 DO-35	SCD SCD SCO	75 PIV -10ma 40V 4 NS Computer	.51 2.25 1.32 3.74 2.07	.46 1.80 1.20 3.40 1.88	.34 1.33 .90 2.50 1.40	.16 .36 .32 .50 .98
555-9120 551-7620 555-9130 555-9135 555-9140	FDH300 FDH666 FDH900 FDH999 FDM700	DO-35	SCD .	150V Low Leakage 45V 4 NS Computer 35V 5 NS Computer 30V 0 7NS Computer	1.98 .99 .99 .90 4 84	1.80 .90 .90 .81 4.40	1.33 .67 .67 .60 2.90	.36 .20 .30 .27 1.75
555-9145 779-3940 916-4102 916-4103 916-4105	FDN777 GT40 HVC248 HVC300 HVC500	D0-7 SP-198 SP-19C	DIAC S RECT S RECT	15V 0 75NS Computer 2400 PIV - 250 ma 3000 PIV - 200 ma	3.63 .35 5.38 5.75 6 25	3 30 .28 4.30 4.60 5.00	2 20 .18 2.87 3.07 3.34	1.30
916-4108 916-4110 916-4111 916-4112 916-4113	HVC750 HVC960 HVC1000 HVC1200 HVC1500				8.13 10.00 10.63 12.50 11.44	6.50 8.00 8.50 10.00 10.40	4.34 5.34 5.66 6.66 8.34	
916-4114 916-4116 916-4117 817-7700 817-7702	HVC1800 HVC2500 HVC3000 IR30A IR308	SP-19N	S RECT	16K PIV - 75 ma lo	13.75 19.25 22.88 7 68 8 83	12.50 17.58 20.80 6.14 7.06	10.00 14.00 16.70 3.53 4.06	
817-7703 817-7704 817-7705 817-7722 817-7730	IR30C IR30D IR30F IR31F IR32B				10 30 11 58 6 65 7 25 7 95	8.24 9.26 5.32 5.80 6.32	4.74 5.33 3.06 3.34 3.66	
817.7734 817.7746 817-8909 817-8910 817-7756	IR32D IR33C IR106A1 IR106B1 IR106C1	SP-67	SCR	200 PRV - 2 Amp to	10.70 10.35 95 1.05 1.30	8 56 8.28 85 95 1 18	4.92 4 76 60 .66 .83	
817-8912 817-8913 817-7766 817-7762 817-7764	IR106F1 IR106Y1 IR122A IR122B IR122C	SP-67 SP-67	SCR. SCR	50 PRV - 2 Amp to 30 PRV - 2 Amp to	93 90 1 80 1.95 2 18	.82 79 1.44 1.58 1.84	.58 56 1.00 1.10 1.32	
817-7768 817-7769 817-9801 817-9752 817-9753	IR122D IR122F IR2160 IRTR52 IRTR53			Unquection Transistor G.P. PNP Small Signal Amp NPN Large Sig. Amp/Med. Spd. Sw.	2.43 1.58 1.95 1.96 1.38	2 10 1.26 1.56 1.58 1 10	1.49 .88 1.10 1.10 .78	
817-9754 817-9755 817-9756 817-9757 817-9758	IRTR54 IRTR55 IRTR56 IRTR57 IRTR58		,	G P PNP Switch & Amp D C to VHF Med Pwr NPN Audio Amp Switch Med Pwr PNP Audio Amp Switch Med Pwr NPN Audio Amp Switch Med Pwr NPN Audio & Switch	1.33 3.03 3.28 3.63 6.50	1.06 2.42 2.62 2.90 5.20	.74 1.65 1.84 2.83 3.65	
817-9759	IRTR59			HI-PWY NPN Amp Med Spd Sw	4.40	3.52	2.47	

SEE PAGE 16 FOR NTEGRATED CIRCUITS

							EACH	
Stock No.	Туре -	Case	Material Function	Specifications	1-	25- 99	100- 999	1000- Up
817-9760 817-9761 817-9762 817-9763	IRTR60 IRTR61 IRTR62 IRTR63			Med. Power Hi-Volt NPN Hi-Pwr Hi-Voltage Sii. Planar NPN. RF Sii. Planar NPN, RF	2.75 14.98 3.68 4.08	2.20 11.98 2.94 3.26	1.54 7.88 2.07 2.28	
817-9764 817-9765 817-9766 817-9767 817-9768	IRTR64 IRTR65 IRTR66 IRTR67 IRTR68			Sil. Planar NPN, RF Sil. Planar NPN, RF Planar Power RF NPN HI-VOIt. Power Sil. NPN HI-VOIt Power	4.60 5.25 19.69 14.83 11.03	3.68 4.20 14.35 11.85 8.82	2.58 2.94 13.18 8.30 6.25	
817-9769 817-9770 817-9771 817-9772 817-9773	IRTR69 IRTR70 IRTR71 IRTR72 IRTR73			Plastic NPN Darlington Amp. Small Signal RF Amp. Small Signal RF Amp. Med. Power Amp. & Audio Driver Med. Power Amp. & Audio Driver	1.18 1.25 1.25 2.75 3.28	.94 1.00 .79 2.20 2.62	.66 .72 .72 1.54 1.84	
817-9774 817-9775 817-9776 817-9777 817-9778	IRTR74 IRTR75 IRTR76 IRTR77 IRTR78		,	Med. Power Audio Amp. TV Horiz. Hi-V Med Pwr Audio Video Amp Sil. Hi-Pwr. Audio Amp. Oouput Sil. Hi-Pwr. Audio Amp. Hi-V TV Video Out Amp	4.08 4.60 2.90 3.28 4.33	3.26 3.68 2.32 2.62 3.46	2.28 2.57 1.62 1.84 2.44	
817-9779 817-9780 817-9781 817-9782 817-9783	IRTR79 IRTR80 IRTR81 IRTR82 IRTR83	1	,	NPN Sil. Hi-V. Video /Audio Out RF Amplifier Sil. Audio Power Amplifier Audio Power Amplifier VHF-UHF Tuner Oscillator	2.90 2.63 2.50 4.40 2.13	2.32 2.10 2.00 3.52 1.70	1.62 1.47 1.40 2.48 1.19	
817-9784 817-9785 817-9786 817-9787 817-9788	IRTR84 IRTR85 IRTR86 IRTR87 IRTR88	,	•	Audio Power Amplifier Audio Driver, Preamp Output Audio Pream, Driver, Video Amp. Audio Preamp, Driver, Video Amp. Audio Preamp, Driver, Video Amp.	2.00 1.50 1.38 2.25 2.50	1.60 1.20 1.10 1.80 2.00	1.12 .84 .77 1.26 1.40	
817-9791 817-9792 817-9793 817-9794 817-9795	IRTR91 IRTR92 IRTR93 IRTR94MP IRTR95			High Voltage Audio Amp. AF Output for Auto Receivers Horizontal Output Stages Audio Amplifiter RF Amp, Mixer, Osc., IF Amp.	3.23 3.45 12.38 7.38 2.13	2.58 2.76 9.90 5.90 1.70	1.81 1.93 6.90 4.20 1.19	
817-8915 817-8916 817-8917 817-8918 817-8921	J14C1 J14C5 J14C8 J29B1 J29B5	SP-34A SP-34B SP-34C SP-34D SP-34G	SL REC SL REC SL REC SL REC SL REC	36 V AC Input - 1.5 Amp DC Io 36V AC Input - 4.8 Amp DC Io 36V AC Input - 8.4 Amp DC Io 36V AC Input - 1.5 Amp DC Io 36V AC Input - 4.8 Amp DC Io	4.23 10.45 13.25 7.68 14.46	3.38 8.36 10.60 6.14 12.31	2.10 5.24 6.98 3.90 10.60	
817-8919 817-8920 817-8923 817-8924 817-8925	J2988 J29804 J5881 J5885 J5888	SP-34E SP-34F SP-34H SP-34J SP-34K	SL REC SL REC SL REC SL REC SL REC	36V AC Input - 8.4 Amp DC Io 36V AC Input - 0.4 Amp DC Io 72V AC Input - 15 Amp DC Io 72V AC Input - 4.8 Amp DC Io 72V AC Input - 8.4 Amp DC Io	19.57 5.05 12.40 24.22 33.52	20.68	14.77 2.73 6.29 18.02 25.10	
817-8927 817-8928 817-8929 817-8926 817-8930	J116B1 J116B5 J116B8 J116B04 J135B1	SP-34M SP-34N SP-34P SP-34L SP-34R	SL REC SL REC SL REC SL REC SL REC	144V AC Input - 1.5 Amp DC Io 144 AC Input - 4.8 Amp DC Io 144 AC Input - 8.4 Amp DC Io 144V AC Input - 0.4 Amp DC Io 180 AC Input - 1.5 Amp DC Io	14.66 43.30 60.96 14.70 13.09	12.42 37.00 51.98 11.76 12.50	10.92 32.50 45.75 7.72 10.98	
817-8941 817-8942 817-8944 817-8947 817-8948	K505C KSA1DAF KSA2DAF KSA5DAF KSA6DBF	SP-98 SP-98 SP-98 SP-98	SCR SL TPN SL TPN SL TPN SL TPN	kit - 50-200 PRV - 1.5-9 Amp Io 26V RMS Max OperFor Rect 60A Rated 52V RMS Max OperFor Rect 60A Rated 130V RMS Max OperFor Rect 60A Rated 156V RMS Max OperFor Rect 60A Rated	11.15 3.98 4.33 5.45 5.93	8.92 3.18 3.46 4.36 4.74	1.83 1.99 2.51 2.73	
817-8949 817-8951 817-8952 817-8954 817-8955	KSA7DBF KSA9DBF KSA10DBF KSA12DBF KSA14DBF	SP-98 SP-98	SL TPN SL TPN	316V RMS Max OperFor Rect 60A Rated 364V RMS Max Oper -For Rect 60A Rated	7.28 8.48 9.10 10.33 11.53	5.82 6.78 7.28 8.26 9.22	3.39 3.96 4.25 4.80 5.33	
817-8961 817-8964 817-8965 817-8967 817-8968	KSL5DAF KZ1DPF KZ2DPF KZ4DPF KZ5DPF	SP-98 SP-99 SP-99 SP-99 SP-99	SL TPN SL TPN SL TPN SL TPN SL TPN	130V RMS Max Opr-For Rect 250A Rated 26V RMS Max Opr-For Rect 16A Rated 52V RMS Max Oper-For Rect 16A Rated 104V RMS Max Oper-For Rect 16A Rated 130V RMS Max Oper-For Rect 16A Rated	10.35 1.60 1.78 2.28 2.53	12.40 1.28 1.42 1.82 2.02	7.13 .74 .85 1.07 1.19	
817-8969 817-8970 817-8972 817-8973 779-5305	KZ6DPF KZ7DPF KZ9DPF KZ10DPF L2001M5	SP-99 SP-99 SP-99 SP-99 TO-5	SL TPN SL TPN SL TPN SL TPN TRIAC	156V RMS Max Oper -For Rect 16A Rated 182V RMS Max Oper -For Rect 16A Rated 234V RMS Max Oper -For Rect 16A Rated 260V RMS Max Oper -For Rect 16A Rated 120V RMS Line 150 W - 5 ma lgt	2.78 3.00 3.48 3.70 1.70	2.22 2.40 2.78 2.96 1.36	1.30 1.43 1.65 1.76 .90	
779-5307 779-5309 817-8974	L2001M7 L2001M9 M1B	TO-5 TO-5 SP-39B	TRIAC TRIAC SL REC	120V RMS Line 150 W - 10 ma lgt 240V RMS Line 300 W - 3 ma lgt 25V RMS Max Imput - 1200 ma DC lo	1.58 1.38 3.35	1.26 1.10 2.68	.84 .73 1.75	

				Ma	kimum Rat		Beta H	FE@IC				
Stock Number	Туре	, Case	Mat. Funct.	Dissi- pation	Col't'r	Col't'r Curr.	Min/ Max.	mA		EACH		
				Watts	Base Volts	mA			1- 24	25- 99	100- 999	1000 Up
555-6329 555-6714	MPS2369 MPS2714	TO-92	SN SH	.310	40	500	40-120	10	.55 .45	.50 .41	.31 .25	.27 .22
555-6923 555-6924 555-6925 555-6926 555-7392	MPS2923 MPS2924 MPS2925 MPS2926 MPS3392					:			.34 .37 .42 .29 .34	.31 .34 .38 .26 .31	.20 .21 .24 .17 .19	.17 .18 .21 .14 .17
556-7638 555-7639 555-7640 555-7646 555-7693	MPS3638A MPS3639 MPS3640 MPS3646 MPS3693	- T0-92 T0-92 T0-92 T0-92 T0-92	SP GP SP SH SP GP SN SH SN GP	.625 .200 .310 .200 .310	25 6 12 40 45	500 80 80 200	100 30-20 30-120 30-120 40-160	50 10 10 30 10	.65 .35 .48 .57 .49	.59 .32 .44 .52 .44	.39 .20 .29 .34 .29	.37 .17 .26 .33
555-7694 555-7702 555-7703 555-7704 555-7705	MPS3694 MPS3702 MPS3703 MPS3704 MPS3705	T0-92	SN GP	.310	45	200	100-400	. 10	.49 .41 .37 .37 .32	.44 .37 .34 .34 .29	.29 .28 .25 .25	.28 .24 .22 .22 .19
555-7706 555-7707 555-7708 555-7711 555-7972	MPS3706 MPS3707 MPS3708 MPS3711 MPS5172		, .						.30 .37 .30 32.00 .21	.27 .34 .27 .29 .19	.21 .25 .21 .22 .12	.18 .22 .18 .19
555-5812 555-5813 555-8514 555-8515 555-5816	MPS6512 MPS6513 MPS6514 MPS6515 MPS6516	T0-92 T0-92 T0-92 T0-92	SN GP SN GP SN GP SP GP	310 .310 .310 .310	40 40 40 40	100 100 100 100	50-100 90-180 250-500 50-100	2 2 2 2	.57 .61 .63 .68 .63	.52 .55 .57 .62 .57	.33 ,34 .36 .39 .36	.27 .28 .30 .32 .30
555-5817 555-5818 555-5819 555-5820 555-5821	MPS6517 MPS6518 MPS6519 MPS6520 MPS6521	T0-92 T0-92 T0-92 T0-92 T0-92	SP GP SP GP SP GP SN LN SN LN	310 310 310 310 310	40 40 25 40 40	100 100 100 100 100	90-180 150-300 250-500 200-400 300-600	2 2 2 2 2	.65 .70 .78 .86 .95	.59 .64 .71 .78 .86	.37 .40 .45 .49 .53	.31 .34 .37 .41 .45
555-5822 555-8523 555-8530	MPS6522 MPS6523 MPS6530	TO-92 TO-92	SP LN SP LN	310 .310	25 25	100	200-400 300-600	2 2	.95 1.02 .68	.86 .93 .62	.53 .58 .39	.45 .49 .32

		1	NTE	GRAT	ED CI	RCUIT	S .			DEVIC		
Stock	Type	Cana	Mat.	Maxi Dissi-	mum Rati	ngs Col't'r	Beta HFE	-		EACH		
Stock Number	Туре	Case	Mat. Funct.	pation Watts	to Base Volts	Corr. Curr. mA	Min/ Max.	mA	1-	25- 99	100- 999	1000- Up
555-8531 555-8532	MPS6531 MPS6532	TO-92 TO-92	SN GP SN GP	.310 .310	60 50	600 600	60-120 30	10 100	.78 57	.71 .52	.45 .33	.37
555-8533 555-8534 555-8535 555-8560	MPS6533M MPS6534M MPS6535M MPS6560	T0-92 T0-92 T0-92 T0-92	SP GP SP GP SP GP SN GP	.310 .310 .310 .500	40 40 30 25 25	600 600 600	30-70 60-110 30 50-200	10 10 100 500	.73 .84 .63 .53	.66 .76 .57 .48	.41 .47 .36 .31	.35 .40 .30 .27
555-8562 555-8563 555-8566 555-8571 555-8590	MPS6562 MPS6563 MPS6566 MPS6571 MPS6590	TO-92 TO-92 TO-92 TO-92	SP GP SP GP NP GP SN LN	.500 .310 .310	20 60 20	600 600 200 50	50-200 50-200 100-400 200-1000	350 10 10	.59 .56 .63 .61	.54 .51 .55 .57 .55	.34 .34 .35 .35	.30 .28 .28 .30
555-4705 555-4706	MPSA05 MPSA06	TO-92	SN GP	.500	60 80	500		50 50	63	.50	.31	.27
555-4709 555-4710 555-4712 555-4713	MPSA09 MPSA10 MPSA12 MPSA13	TO-92 TO-92 TO-92 TO-92 TO-92	SN LN SN GP SN DA SN DA	,310 300 .310 .500	50 40 20 30	50 100 300	100-600 40-100 20K- 10K-	10 5 10 100	.57 .28 .70 .54	.52 .26 .64 .43	.33 .16 .48	.28 .14 .35 .24
595-4714 555-4720 555-4901 555-4907	MPSA14 MPSA20 MPSL01 MPSL07	T0-92 T0-92	SN DA SN GP SP SH SP SH	.500 .300	30 100 6	300 100 80 80	20K- 40-400 30-120	100 5 10	.55 .34 .61 .45	.50 .31 .55 .41	.31 .19 .34 .25	.25 .17 .30 .22
555-4908 555-4951 817-8976 817-8977 817-8978	MPSL08 MPSL51 P-101 P-102 P-111 P-112	T0-92	25 2H	.310	6	80	30-120	10	.65 38.66 54.12 38.66 54.12	.59 28.67 36.38 28.67 36.38	.37	.32
817-8980 817-8982 817-8984 817-8986 817-8988 817-8990	P-121 P-122 P-131 P-132 P-141								38.66 54.12 52.49 72.73 29.91	28.67 36.38 41.90 54.58 23.15		
817-8992 817-8994 817-8996 817-8998 817-9000	P-142 P-151 P-152 P-201 P-202								40.51 18.42 21.93 66.28 77.34	29.77 13.23 15.44 46.86 54.02		
817-9002 817-9004 817-9006 817-9008 817-9010	P-211 P-212 P-221 P-222 P-231								66.28 77.34 66.28 77.34 108.63	46.86 54.04 46.86 54.02 77.18		
817-9012 817-9014 817-9016 817-9018 817-9020	P-232 P-241 P-242 P-251 P-252								97.46 75.48 76.42 41.43 44.19	81.59 45.20 50.17 29.77 31.43		
817-8822 817-8824 817-8826 817-8828 817-8830	PH-401 PH-402 PH-411 PH-412 PH-421								13.50 11.22 13.50 11.22 13.50	6.25 8.03 6.25 8.03 6.25		
817-8832 817-8834 817-8836 817-8838 817-8840	PH-422 PH-431 PH-432 PH-441 PH-442								11.22 14.98 12.81 13.25 14.70	8.03 7.04 9.03 5.30 6.93		
817-8842 817-8844 817-8846 817-8848 779-6265	PH-451 PH-452 PH-481 PH-482 Q401SL5/A01	182							10.63 13.93 11.68 10.17 3.90	5.04 6.56 5.51 7.19 3.13	2.09	
779-6036 779-6140 779-6141 779-6180 779-6200	Q2001L3 Q2006L4/A01 Q2006LT/A01 Q2008L4/A01 Q2010	081							1.40 1.65 1.88 1.75 2.75	1.13 1.33 1.50 1.40 1.68	.75 .89 1.00 .94 1.12	
779-6190 779-6233 779-6263 779-6236 779-6278	Q2010L4/A01 Q2015 Q2015L4/A01 Q2015T Q2025C								2.10 3.38 3.20 3.75 8.38	1.68 2.70 2.56 3.00 6.70	1.12 1.80 1.70 2.00 4.48	
779-4468 779-4472 779-6058 779-6063 779-6064	Q2040C Q20400 Q4001P3 Q4003L3/A01 Q4003L4/A01	SP-116 SP-116 003 004	TRIAC	200 200	57.0 57.0	100 100			8.95 9.18 1.58 1.70 1.58	7.16 7.34 1.26 1.36 1.26	4.78 4.90 .84 .90 .84	
779-6142 779-6119 779-6157 779-6182 779-6183	Q4006L4/A01 Q4006T Q4008A Q4008L4/A01 Q4008LT/A01	. 102		,		,			1.83 2.33 2.43 1.95 2.20	1.46 1.85 1.95 1.56 1.76	.97 1.24 1.30 1.04 1.17	
779-6207 779-6192 779-6193 779-6239 779-6266	Q4010 Q4010L/A011 Q4010LT/A01 Q4015 Q4015LT/A01	162				. ,			2.28 2.08 4.12 4.23 4.15	1.83 1.66 1.85 3.38 3.33	1.22 1.10 1.24 2.25 2.22	
779-6274 779-6289 779-4672 779-6285 779-6223	Q4025C Q4040 Q4040C Q5025D Q6010T	SP-116	'TRIAC	400	57.0	100			10.25 10.25 10.63 11.88 3.78	8.20 8.20 8.50 9.50 3.03	5.45 5.48 5.68 6.35 2.03	
779-4780 779-4788 551-7740 551-7840 551-7860	Q6040C Q6040D RF300 RF400 RF401	SP-115 SP-113 D0-34 D0-34 D0-34	TRIAC TRIAC SCD SCD SCD	600 600	57.0 57.0	100			13.13 13.38 1.80 1.80 1.80	1.00	7.05 7.15 .90 .90	.80
779-3088 779-3133 779-8901 779-3136 779-8902	\$0308L\$2 \$0501J\$1 \$1000K \$1001J\$1 \$1001K\$2	SP-110 SP-110 SP-110	SCR SCR SCR	30 50 100	12.2 2.3 2.3	200 50 50			1.40 .88 .80 .93	.70 .66 .77	.73 .47 .44 .51 .46	
779-2801 779-6375 779-6376 779-3020 779-3028	\$2000K \$2003L\$1 \$2003L\$2 \$2006L\$2 \$2008L\$2	SP-110 SP-110 SP-110	SCR SCR SCR	200 200 200	8.6 12.2	10 200 200			.85 1.03 1.05 1.55 1.60	1.24	.47 .56 .53 .82 .85	
779-6486 779-6625 779-3124 779-6378 779-6379	\$2010L\$2 \$2015L \$4001J\$1 \$4003L\$1 \$4003L\$2	SP-110	SCR	400	2.3	50			1.95 2.25 1.40 1.55 1.40	1.20	1.04 1.20 .74 .80 .74	
779-3024	S4005LS2	SP-110	SCR	400	86	200			1.75	1.40	.93	



SEE PAGE 16 FOR INTEGRATED CIRCUITS

Discrete Devices Directory

				Max	ımum Rat	ings	Beta H	IFE@IC	}			
Stock	- Туре	Case	Mat. Funct.	Dissi- pation	Cal't'r	Col't'r Curr.	Min/ Max.	mA		EAC	н	
Number			runci.	Watts	Base Volts	mA			1-24	25- 99	100- 999	1000 Up
779-6464 779-6488 779-6628 779-6659	\$4008L\$2 \$4010L\$2 \$4015H \$4025C								2.83 2.25 5.20 7.13	1.63 1.80 4.18 5.70	1.09 1.20 2.80 3.80	
779-6633 916-4210 916-4212 916-4214	\$6015L \$-5959 \$-5959-2 \$-5959-4								3.75 2.90 3.65 7.05	3.00 2.32 2.92 5.64	2.00 1.54 1.94 3.74	

916-4210 916-4212 916-4214	S-5959 S-5959-2 S-5959-4				2.90 3.65 7.05	2.32 2.92 5.64	1.54 1.94 3.74	Ŀ
							EACH	
Stock No.	Туре	Case	Material Function	Specifications	1-	25- 99	100- 999	1000- Up
916-4266	S-6121	SP-102	S REC B	70 Volts RMS - 8 6 Amp	5.00	4.80	3.19	
916-4221 916-4269 916-4270 916-4272 916-4275	S-6121-1 S-6211 S-6211-1 S-6211-2 S-6230				6.30 3.18 3.50 3.83 2.20	5.04 2.54 2.80 2.06 1.76	3.35 1.82 1.86 2.04 1.19	
916-4277 916-4279 916-4284 916-4283 916-4286	S-6230-1 S-6230-2 S-6240-2 S-6240-4 S-6240-6				2.65 3.15 5.63 7.70 9.65	2.12 2.52 4.50 6.16 6.70	1.41 1.68 3.00 4.00 5.73	5.25
916-4288 916-4441 916-4442 916-4444 916-4446	S-6240-8 S-6314-1 S-6314-2 S-6314-4 S-6314-6				11.75 6.05 6.38 6.88 8.88	9.40 4.85 5.10 5.50 7.10	6.10 3.20 3.36 3.68 4.75	
916-4449 916-4421 916-4471 916-4472 916-4474	\$-6314-10 \$-6320-1 \$-6327-1 \$-6327-2 \$-6327-4				14.00 4.83 4.75 6.25 6.50	11.20 3.86 3.80 5.00 5.20	7.43 2.23 2.56 3.30 3.50	
916-4486 916-4496 916-4531 916-4532 916-4534	S-6337N-6 S-6337P-6 S-6458-1 S-6458-2 S-6458-4	1		;	2.25 2.25 6.53 6.60 6.80	1.80 1.80 3.68 3.87 3.90	1.20 1.20 3.43 3.50 3.62	
916-4536 916-4538 916-4530 916-4540 916-4641	S-6458-6 S-6458-8 S-6458-05 S-6458-10 S-6464-1	:	,		6.95 7.35 6.35 7.85 7.85	3.98 4.20 3.64 4.50 4.03	3.70 3.90 3.38 4.18 3.75	
916-4642 916-4644 916-4646 916-4648 916-4640	S-6464-2 S-6464-4 S-6464-6 S-6464-8 S-6464-05	. ;		; ; ;··-	7.28 7.50 7.75 8.10 7.05	4.15 4.29 4.40 4.63 4.03	3.87 3.99 4.18 4.30 3.75	-,
916-4650 555-7035 555-7036 555-7090 555-7091	S-6464-18 - SE7055 SE7056 SE9300 SE9301	T0-220 T0-220		60V 70W Darl Pwr 80V 70W Darl Pwr	8.75 3.08 3.41 1.75 1.88	5.00 2.80 3.10 1.05 1.12	4.65 1.75 1.91 .90 .97	1.52 1.66 .81 .87
555-7092 555-7093 555-7094 555-7095 555-7099	SE9302 SE9303 SE9304 SE9305 SE9331	T0-220 T0-3 T0-3 T0-3 T0-66		100V 70W Darl Pwr 60V 100W Darl Pwr 80V 100W Darl Pwr 100V 100W Darl Pwr 300V 1A Pwr	2.00 2.63 3.00 3.38 1.38	1.20 1.49 1.62 1.95 .88	1.04 1.34 1.46 1.76 .72	.93 1.21 1.41 1.59 .63
779-6432 779-6480 779-6315 779-6406 779-6617	S0306LS2 S0310LS2 S0500KS1 S0503RS2 S0515L				1.42 1.50 .83 .90 2.00	1.02 1.20 .65 .74 1.60	.68 .80 .45 .49 1.07	
916-0207 916-0208 817-9803 925-6901 925-6902	ST3A30P/1N ST3A50P/1N TAS100 TD100 TD101	2157 2159 10-77 10-77	SN AD SN AD	5	4.55 5.45 1.33 3.75 2.50	4.75 5.88 1.06 3.00 2.00	3.40 4.18 2.50 1.67	
925-6903 925-6920 925-6921 925-6924 925-6935	TD102 TD400 TD401 TD402 TD600	T0-77 T0-77 T0-77 T0-77 T0-77	SN DT SP AD SP AD SP DT	Dual 60 Dual 40	2.25 5.00 3.50 3.00 4.50	1.80 4.00 2.60 2.40 3.60	1.50 3.34 2.17 2.00 3.01	1.18 1.00 1.55
925-6936 925-6937 925-6980 925-6990 925-7001	TD601 TD602 TD2219 TD2905 TN53	10-77 T0-77 10-77 T0-77 T0-5	S DT S DT S DT SN PE	Dual 40 One Each NPN-PNP Dual 60 One Each NPN-PNP Dual 60 One Each NPN-PNP Pd (W) 0.8BV 75 to 50 ma ff 100 MHz	2.75 2.50 3.75 4.25 1.43	2.20 2.00 3.00 3.40 1.14	1.84 1.67 2.50 2.84 .95	
925-7007 925-7008 925-7019 925-7020 925-7034	TN59 TN60 TP3638 TP3638A TQ59	TO-5 TO-18 TO-105 TO-105 TO-98	SN PE SN PE	PD (W) 0 8 BV 40 Io 100 mafT 100 MHz PD (W) 0 5 BV 40 Io mafT 100 MHz	1.13 1.13 .70 .75 1.70	.90 .90 .56 .69 1.36	.75 .75 .47 .50 1.14	.62
817-9701 817-9702 817-9703 817-9705 817-9708	TR01 TR02 TR03 TR05 TR08			Hi-Power Audio Amp & Switch Med. Pwr. Low-V Audio Amp. Hi-Power & Gain Amp & Switch Med Power Hi-Gain Amp & Switch Med Pwr Gen Purpose Amp.	2.38 1.18 2.38 1.45 1.45	1.90 .94 1.90 1.16 1.16	1.32 .66 1.32 .81	
817-9712 817-9714 817-9716 817-9717 817-9719	TR12 TR14 TR16 TR17 TR19		-	Low Power General Purpose Amp, Med Power Gen. Purpose Amp. Hi-Power Low Leakage Amp. Low Pwr. Hi-Gain, Low Noise Hi Speed Switch	1.33 1.53 2.23 1.70 1.53	1.06 1.22 1.78 1.36 1.22	.70 .85 1.25 .96 .85	
817-9720 817-9721 817-9723 817-9724 817-9725	TR20 TR21 TR23 TR24 TR25			Hi Speed Switch Hi Speed Switch Hi-Voltage Power Transistor Small Sig., NPN, Low Noise Amp Med Current Switch, Audio to RF	1.25 1.48 3.80 2.10 1.98	1.00 1.12 3.84 1.88 1.58	.70 .78 2.13 1.18 1.10	
817-9726 817-9727 817-9728 817-9729 817-9730	TR26 TR27 TR28 TR29 TR30			Hi-Pwr. Audio Amp.Hi Freq. Switch Hi Voltage PNP Power Med. Cur. PNP Switch & Audio RF Hi-Pwr. NPN Audio Amp/Hi-Freq Sw PNP Small Signal Low Noise Amp	4 73 9 85 2.23 6.35 2.38	3.78 7.88 1.78 5.08 1.90	2.65 5 51 1.26 3.57 1.32	
817-9731	TR31			Universal PNP Silcon Transistor	1 28	1.02	68	

Stock	Type	Case	Material	Specifications	EACH					
No.	Type	Gase	Function	Specifications	1- 24	25- 99	100- 999	1000- Up		
817-9736 817-9737 925-7046 976-3525	TR36 TR37 TZ81 VA25			Univ Hi-Pwr. Sil Audio Amp Univ Med Pwr. PNP Silicon	13.88 7.50 .70 2.65	11.10 6.00 .56 2.12	7.39 3.99 .47 1.25	.22		

976-3525	VA25						2.65	2.12	1.25	.24
Stock	Туре	Case	Material	Max. Peak	Reverse	Operating		EACH		
Number		<u> </u>	Function	Reverse Voltage	Current mA	Current Io Amps	1-	25- 99	100- 999	1000- Up
976-1402	VB15	SP-119	S RECT	1.5K		100	2.45	1.51	1.15	
976-1404 976-1406 976-1408 976-1409 976-1412	VB20 VB25 VB30 VB30X VB50	SP-119 S-119 SP-119 SP-119 SP-119	S RECT S RECT S RECT S RECT S RECT	2K 2.5K 3K 3K 5K		100 100 50 25 50	2.60 2.80 3.05 4.98 3.90	2.08 2.24 2.44 3.26 3.12	1.20 1.30 1.42 1.90 1.82	
976-1414 976-1500 976-1510 976-1520 976-1530	V860 VC20 VC30 VC40 VC50	SP-119 SP-120 SP-120 SP-120 SP-120	S RECT S RECT S RECT S RECT S RECT	6K 2K 3K 4K 5K		. 50 2 2 2 2 1.5	4.25 7.00 7.43 7.88 8.30	3.40 5.60 5.94 6.30 6.64	1.99 4.00 4.25 4.50 4.75	
976-1540 976-1550 976-1560 976-2010 976-2019	VC60 VC70 VC80 VE18 VE27	SP-120 SP-120 SP-120 SP-121 SP-121	S RECT S RECT S RECT S REC B S REC B	6K 7K 8K 100 200		1.5 · 1.5 · 1	8.75 9.18 9.63 2.00 2.28	7.00 7.34 7.70 1.60 1.12	5.00 5.25 5.50 .92 1.10	.80
976-2020 976-2042 976-2050 976-2074 976-2090	VE28 VE47 VE48 VE67 VE68	SP-121 SP-121 SP-121 SP-121 SP-121	S REC B S REC B S REC B S REC B S REC B	200 400 400 600 600			2.13 2.60 2.35 3.00 2.75	1.70 2.08 1.88 2.40 2.20	1.00 1.20 1.10 1.45 1.35	.85 1.84 .94 1.20 1.10
976-2600 976-2635 976-2670	VF5/5 VF5/12X - VF5/30	SP-122A SP-122A SP-122A	S RECT S RECT - S RECT	5 12 30		5 5 5	2.28 3.50 6.38	1.60 2.44 4.46	1.08 1.64 3.00	
976-2680 976-2686 976-2694 976-2698 976-2699	VF5/40 VF10/5 VF10/15 VF10/25 VF10/25X	SP-122A SP-122B SP-122B SP-122B SP-122B	S RECT S RECT S RECT S RECT S RECT	40 5 15 25 25		5 10 10 10 10	8.50 2.63 3.75 6.08 6.68	5.95 2.10 2.54 4.86 5.34	4.00 1.50 2.15 3.47 3.89	
976-2702 976-2710 976-2718 976-2720 976-2721	VF10/40 VF25/12 VF25/30 VF25/40 VF25/40X	SP-122B SP-122C SP-122C SP-122C SP-122C SP-122C	S RECT S RECT S RECT S RECT S RECT	40 12 30 40 40		10 25 25 25 25 25	9.70 3.98 8.00 10.68 11.73	7.76 3.18 6.40 8.54 9.38	5.54 2.27 4.57 6.10 6.70	
976-3302 976-3304 976-3305 976-3310 976-3320	VG2 VG4 VG5 VG10 VG20						1.13 1.43 1.58 2.18 3.72	.90 1.14 1.26 1.74 2.08	.68 .83 .97 1.18 1.65	
976-3700 976-3720 976-2850 976-3725 976-3705	VH048 VH048 TT VH148 VH148/TT VH148X	SP-123	S REC B	100		6 AMP	3.05 3.23 3.35 3.60 4.23	2.44 2.58 2.68 2.88 3.38	1.43 1.53 1.58 1.68 1.98	
976-3770 976-2852 976-3750 976-2853 976-3730	VH148X/TT VH247 VH247/TT VH248 VH248/TT	SP-123 SP-123	S REC B	200		6 AMP	4.40 3.98 4.23 3.73 3.96	3.52 3.18 3.38 2.98 3.18	2.05 1.85 1.95 1.75 1.85	П
976-3710 976-3775 976-2854 976-3755 976-2856	VH248X VH248X/TT VH447 VH447 TT VH448	SP-123 SP-123	S REC B	400 400	7	6 AMP	4.73 4.93 4.58 4.83 4.33	3.78 3.94 3.66 3.86 3.46	2.20 2.30 2.13 2.23 2.03	1.83
976-3735 976-3715 976-3780 976-2858 976-3760	VH448/TT VH448X VH448X/TT VH647 VH647/TT	SP-123	S REC B	600		6 AMP	4.58 5.20 5.40 5.25 5.50	3.68 4.16 4.32 4.20 4.40	2.13 2.46 2.56 2.45 2.55	
976-2860 976-3740 976-2862 976-3765 976-2865	VH648 VH648/TT VH847 VH847/TT VH848	SP-123	S REC B	600		6 AMP	5.00 5.25 5.78 5.95 5.17	4.80 4.20 4.62 4.96 4.48	2.35 2.45 2.69 2.76 2.68	
976-3745 976-2900 976-2940 976-2920 976-2901	VH848/TT VJ048 VJ048/TT VJ048X VJ148					· · ·	5.25 3.00 3.55 4.13 3.68	4.20 1.93 2.03 2.37 2.12	2.45 1.58 1.68 1.96 1.74	
976-2941 976-2921 976-2902 976-2942 976-2903	VJ148/TT VJ148X VJ247 VJ247/TT VJ248		;				3.92 4.60 4.38 4.63 4.10	2.22 2.64 2.46 2.56 2.36	1.84 2.18 2.02 2.12 1.92	
976-2943 976-2923 976-2904 976-2944 976-2905	VJ248/TT VJ248X VJ447 VJ447/TT VJ448				· · · · · · · · · · · · · · · · · · ·		4.35 4.83 5.03 5.28 4.75	2.46 2.96 2.84 2.94 2.74	2.82 2.42 2.33 2.43 2.23	
976-2945 976-2924 976-2906 976-2946 976-2907	VJ448/TT VJ448X VJ647 VJ647/TT VJ648		;			,	5.09 5.55 5.77 6.03 6.10	2.84 3.26 3.28 3.38 3.59	2.33 2.71 2.53 2.63 2.98	
976-2947 976-2927 976-2908 976-2948 976-2909	VJ648/TT VJ648X VJ847 VJ847/TT VJ848	a.					5.78 6.10 6.40 6.65 6.03	3.28 3.59 3.58 3.68 3.36	2.53 2.98 2.80 2.90 2.63	
976-2949	VJ848/TT						6.28	3.48	2.73	
	T		1	Zener	Zener Zer	ner l		EAC	Н	

Stock	Type	Case	Mat.	Dissi-	Zener Volt-	Zener Test	Zener Test	Tol.		EAC	Н	
Number	,,,,,	0830	Funct.	pation Watts	age Volts	Current	Imped. Ohms	00	1- 24	25- 99	100- 999	1000- Up
916-4301 916-4303 916-4304 916-4306	VR6A VR7 VR7A VR8.5								1.98 1.38 1.98 1.38	1.80 1.25 1.80 1.25	1.35 .93 1.35 .93	

Discrete Devices Directory

SEE PAGE	16 FOR
INTEGRATED	CIRCUITS

DISCRETE
DEVICES

Stock	Type	Case	Mat.	Dissi-	Zener Volt-	Zener Test	Zener	Tol.		EAG	CH	
Number	туре	Case	Funct.	pation Watts	age Volts	Current	Imped. Ohms	%	1-24	25- 99	100- 999	1000- Up
916-4307 916-4309 916-4310 916-4312 916-4313	VR8.5A VR10 VR10A VR12 VR12A	SP-110	S ZEN	\$	8 5		6	5	1.98 1.38 1.98 1.38 1.98	1.80 1.25 1.80 1.25 1.80	1,35 .93 1,35 .93 1,35	N.
916-4314 916-4315 916-4317 916-4318 916-4320	VR14 VR14A VR18 VR18A VR20			~					1.38 1.98 1.38 1.98 1.38	1.25 1.80 1.25 1.80 1.25	.93 1.35 .93 1.35 .93	
916-4321 916-4323 916-4324 918-4327 916-4329	VR20A VR24 VR24A VR28A VR33					,			1.98 1.38 1.98 1.98 1.38	1.80 1.25 1.80 1.80 1.25	1.35 .93 1.35 1.35 .93	
916-4330 916-4332 916-4335 916-4337 916-4338	VR33A VR39 VR47 VR56 VR56A	1							1.98 1.38 1.38 1.38 1.98	1.80 1.25 1.25 1.25 1.25 1.80	1.35 .93 .93 .93 1.35	
916-4340 916-4341 976-3050 976-3051 916-4360	VR67 VR67A VR100X/F/S VR100X/F/T VR130	SP-123 SP-123	S RE		100			10 AMP 10 AMP	1.38 1.98 10.63 10.38 2.09	1.25 1.80 8.50 8.30 1.90	.93 1.35 5.35 5.25 1.43	
916-4363	VR150							1	2.09	1.90	1.43	
916-4364 916-4368 916-4374 916-4375 976-3100	VR150A VR160 VR200 VR200A VR200X	SP-110 SP-123	S ZEN S RE	1 C B	150 200	. 1	860	10 AMP	2.49 2.09 2.09 2.49 11.88	2.26 1.90 1.90 2.26 9.50	1.70 1.43 1.43 1.70 5.95	
976-3111 976-3112	VR400X/F/S VR400X/F/T	SP-123 SP-123	S RE		400 400		1	10 AMP 10 AMP	16.13 15.88	12.90 12.70	8.30 8.20	

				Max.	B	Outseties		EAC	Н	
Stock Number	Туре	Case	Material Function	Peak Reverse Voltage	Reverse Current , mA	Operating Current 10 Amps	1-24	25- 99	100- 999	1000- Up
976-3835 976-3850 976-0310	VS048 VS048/TT VS148						1.67 1.85 2.00	1.48	.95	
976-3855 976-3114 976-3900	VS148/TT VS148X VS148X/TT	SP-123	S REC B	100		2 AMP	2.23 3 18 3.08	2 55	1.50	
976-3130 976-3880	VS247/TT	SP-123	S REC B	200		2 AMP	2.37 2.63	1.90	1.10	
976-3131 976-3860 976-3905	VS248 VS248/TT VS248X/TT	SP-123	S REC B	200		2 AMP	2.13 2.38 3.35	1.90	1.00 1.10 1.75	Į.
976-3140 976-3885	VS447 VS447/TT	SP-123	S REC B	400		2 AMP	2.83 3.08	2.26 2.46	1.20	r e
976-3141 976-3865 976-3910	VS448 VS448/TT VS448X/TT	SP-123	S REC B	400		2 AMP	2.58 2.83	2.06 2.26	1.20	
976-3148 976-3890	VS647 VS647/TT	SP-123	S REC B	600		2 AMP	3.65 3.25 2.99			
976-3152 976-3870	VS648 VS648/TT	SP-123	S REC B	600	. "	2 AMP	3.00 3.25	2.60	1.40	1
976-3845 976-3895 976-3840	VS847 VS847/TT VS848				,	and the second	3.10 3.28 2.93	2.62	1.75	
976-3875 976-3160	VS848/TT VT200	SP-124	S REC B	200	7-	25 AMP	3.55 7.63	2.84 6.10		
976-3161 976-3162 976-3170	VT200/S VT200/T VT400	SP-125 SP-126 SP 124	S REC B S REC B S REC B	200 200 400		25 AMP 25 AMP 25 AMP	8.25 8.00 10.25	6.40	4.15	
976-3171 976-3172 976-3180	VT400/S VT400/T	SP-125 SP-126	S REC B S REC B	400 400		25 AMP 25 AMP	10.88			1
976-3181 976-3182	VT600/S VT600/T	SP-124 SP-125 SP-126	S REC B S REC B S REC B	600 600 100		25 AMP 25 AMP 25 AMP	13.88 14.50 14.25	11.60	7.10 7.40 7.30	
976-3184 976-3185	VY100X/S VY100X/T	SP-125 SP-126	S REC B S REC B	100 100		25 AMP 25 AMP	13.55 13.30	10.64		
976-3200 976-3201	W110 W111/VE08	SP-121 SP-121	S REC B S REC B	25 25		1 AMP 1 AMP	1.80 1.90	1.44		

Stock	Tunn	Case	Material	Specifications	1	EACH				
No.	Туре	Lase	Function	Specifications	1- 24	25- 99	100- 999	1000 Up		
916-5006	3BF6			, , , , , , ,	1.60	1.07	.90			
916-5009 916-5202 817-7100 817-7102 817-7105	3BF10 3CFS20 5A2 5A3 5A4	SP-56 SP-56	S RECT	200 PRV - 1 Amp RMS to 400 PRV - 1 Amp RMS to	2.70 1.65 .68 .80 .88	1.80 1.32 .54 .64 .70	1.54 1.11 .31 .37 .40			
817-7110 817-7114 817-7118 817-7122 817-8126	5A5 5A6 5A8 5A10 5MA4	SP-56 SP-56 SP-56 SP-56 SP-65	S RECT S RECT S RECT S RECT S RECT	500 PRV - 1 Amp RMS to 600 PRV - 1 Amp RMS to 800 PRV - 1 Amp RMS to 1000 PRV - 1 Amp RMS to 400 PRV - 1 Amp RMS to	.95 1.10 1.88 2.55 1.66	.76 .88 1.50 2.04 1.32	.44 .51 .86 1.17 .84			
817-8225 817-8236 817-7170 817-7174 817-7178	8D4 1081 1084 1086 10810	D0-39 D0-1 D0-1 D0-1 D0-1	REC TR S RECT S RECT S RECT S RECT	400 PRV8 Amp RMS to 100 PRV - 1 3 Amp RMS to 400 PRV - 1.3 Amp RMS to 600 PRV - 1.3 Amp RMS to 1000 PRV - 1 3 Amp RMS to	.85 .88 1.50 2.08 3.73	.68 .70 1.29 1.66 2.98	.44 .41 .70 .97			

		DEVICES						
Stock	Туре	Case	Material	Specifications		EA	СН	·
No.		Vasc	Function	Specifications	1- 24	25- 99	100- 999	1000- Up
817-7179 817-7181 817-7182 817-7184 817-7186	10C1 10C3 10C4 10C6 10C8	SP-58 SP-58 SP-58 SP-58 SP-58	S RECT S RECT S RECT S RECT S RECT	100 PRV - 1 0 Amp RMS to 300 PRV - 1 0 Amp RMS to 400 PRV - 1 0 Amp RMS to 600 PRV - 1 0 Amp RMS to 800 PRV - 1 0 Amp RMS to	1.10 1.43 1.55 1.88 2.08	57 71 80 95 1.02	53 66 .74 88 .96	
817-7190 817-7191 817-7192 817-7193 817-7194	1002 1003 1004 1005 1006	D0-39 D0-39 D0-39 D0-39 D0-39	S RECT S RECT S RECT S RECT S RECT	200 PRV - 1 0 Amp RMS to 300 PRV - 1 0 Amp RMS to 400 PRV - 1 0 Amp RMS to 500 PRV - 10 Amp RMS to 600 PRV - 1 0 Amp RMS to	37 80 47 95 58	34 64 43 .76 53	30 37 39 .44 .48	
817-7196 817-7198 817-7200 817-7206 4817-7207	1008 10010 10081P 10082P 10083P	DO-39 DO-39	S RECT S RECT REC BR	800 PRV - 1 0 Amp RMS to 1000 PRV - 1 0 Amp RMS to 200 PRV - 1 0 Amp RMS to	98 1.39 2 50 2.63 2 75	89 1.26 2 00 2 10 2 20	.83 1.12 1.44 1.54 1.66	
817-7208 817-7214 .817-7218 817-7220 916-5425	10DB4P 10RC10A 10RC30A 10RC40A 10T200A		REC BR	400 PRV - 1 0 Amp RMS to	3.05 7 48 10 53 12 88 5.63	2 44 5 98 8 42 10 30 4 50	1.76 3.44 4.84 5.93 2.99	
817-8281 *817-8282 817-8283 817-8284 817-8285	16RC10A 16RC20A 16RC40A 16RC60A 16RC80A	TO-48 TO-48 TO-48 TO-48 TO-48	SCR SCR SCR SCR SCR SCR	100 PRV - 16 Amp RMS to 200 PRV - 16 Amp RMS to 400 PRV - 16 Amp RMS to 600 PRV - 16 Amp RMS to 800 PRV - 16 Amp RMS to	7 73 9.75 13.53 13.81 22.55	6 18 7 80 10 82 13 39 18 38	3.55 4.49 6 22 9.51 15 82	
817-8286 817-8287 817-8306 817-8310 817-8314	16RC100A 18D82A 18D84A 18D86A 18D810A	TO-48	SCR REC BR REC BR	1000 PRV - 16 Amp RMS to 200 PRV - 1 8 Amp RMS to 1000 PRV - 1 8 Amp RMS to	32 60 3.18 4 28 4 83 8 83	26 41 2.54 3 42 3.86 7.06	22.71 1.49 2 04 2 37 4.14	
817-8341 817-7306 817-8343 817-8344 817-8345	20A1 20A2 20A3 20A4 20A5	SP-56 SP-56 SP-56 SP-56 SP-56	S RECT S RECT S RECT S RECT S RECT	100 PRV - 2 Amp RMS to 200 PRV - 2 Amp RMS to 300 PRV - 2 Amp RMS to 400 PRV - 2 Amp RMS to 500 PRV - 2 Amp RMS to	.88 .98 1.08 1.23 1.40	.70 .78 .86 .98 1.12	40 45 49 .56 .64	
817-8346 817-7300 817-8348 916-5427 916-5450	20A6 20A05 20A10 20AFS100 20CRBR-05	SP-56 DO-27 SP-56	S RECT S RECT S RECT	600 PRV - 2 Amp RMS Io 50 PRV - 2 Amp Average 1000 PRV - 2 Amp RMS Io	1.58 .80 2.73 2.25 18.37	1.26 .64 2.18 1.80 13.50	.73 .37 1.25 1.29 12.30	
916-5452 916-5454 916-5456 916-5458 916-5460	20CRBR-10 20CRBR-20 20CRBA-30 20CRBR-40 20CRBR-50				20.54 22.55 24.22 25.96 29.70	14.50 15.20 16.90 20.20 23.60	13.50 13.50 15.20 16.90 20.20	
916-5462 916-5433 817-8370 817-8371 817-8372	20CRBR-60 25DF\$120 30\$1 30\$2 30\$3	SP-60 SP-60 SP-60	S RECT S RECT S RECT	100 PRV - 3 Amp RMS Io 200 PRV - 3 Amp RMS Io 300 PRV - 3 Amp RMS Io	37.18 3.43 .64 .69 .81	27.00 2.74 .58 .63 .74	23.60 1.96 .36 .44 .53	
817-8373 817-8374 817-8375 817-8376 817-8377	30\$4 30\$5 30\$6 30\$8 30\$10	SP-60 SP-60 SP-60 SP-60 SP-60	S RECT S RECT S RECT S RECT S RECT	400 PRV - 3 Amp RMS to - 500 PRV - 3 Amp RMS to 600 PRV - 3 Amp RMS to 800 PRV - 3 Amp RMS to 1000 PRV - 3 Amp RMS to	.99 .10 1.35 2.08 2.89	.90 1.00 1.23 1.89 2.63	.64 .71 .86 1.41 1.95	
817-8400 817-8402 817-8403 817-8404 817-8405	40HF5 40HF30 40HF40 40HF50 40HF60	SP-68 SP-68 SP-68 SP-68 SP-68	S RECT S RECT S RECT S RECT S RECT	50 PRV - 40 Amp RMS to 300 PRV - 40 Amp RMS to 400 PRV - 40 Amp RMS to 500 PRV - 40 Amp RMS to 600 PRV - 40 Amp RMS to	2.58 6.05 7.35 8.70 9.93	2.06 4.84 5.88 6.96 7.94	1.22 2.85 3.47 4.10 4.66	
817-8407 817-8409 817-8453 817-8454 817-8455	40HF80 40HF100 40RCS20 40RCS30 40RCS40	SP-68 SP-68 SP-69 SP-69 SP-69	S RECT S RECT SCR SCR SCR	800 PRV - 40 Amp RMS to 1000 PRV - 40 Amp RMS to 200 PRV - 63 Amp RMS to 300 PRV - 63 Amp RMS to 400 PRV - 63 Amp RMS to	12.80 11.44 17.54 20.84 27.90	10.24 10.40 11.29 13.28 15.88	6.03 7.94	
817-8458 916-6016 817-8500 817-8501 817-8502	40RCS70 45EFS150 50FB1L 50FB2L 50FB3L	SP 70 SP-73 SP-73 SP-73	SCR S REC BR S REC BR S REC BR	700 PRV - 63 Amp RMS Io 100 PRV - 5 Amp RMS Io 200 PRV - 5 Amp RMS Io 300 PRV - 5 Amp RMS Io	39.90 3 58 4.55 5.25 5.93	26.46 2.86 3.64 4.20 4.74	2.05 2.26 2.65 2.98	
817-8503 817-8507 817-8507 817-8506 817-8520	50FB4L 50HQ15 50HQ015 50HQ020 60FB2L	SP-73	S REC BR	400 PRV - 5 Amp RMS to	5.90 14.04 15.60 7.18	5.52 12.76 14.18 5.74	3.48 8.94 9.92 3.53	
817-8521 817-8522 817-8524 817-8518 916-6027	60FB3L 60FB4L 60FB6L 60FB05L 70GFS400	SP-73 SP-73 SP-73 SP-73	S RECT S RECT S RECT S REC BR	300 PRV - 6 Amp RMS Io 400 PRV - 6 Amp RMS Io 600 PRV - 6 Amp RMS Io 50 PRV - 6 Amp RMS Io	7.73 9.38 11.55 4.38 9.18	6.18 7.50 9.26 3.20 7.34	3.86 4.68 5.79 2.57 5.25	
817-9050 817-9055 817-9065 817-9070 817-9080	70H10A 70H20A 70H30A 70H40A 70H60A				6.28 8.28 10.20 12.00 10.98	5.02 6.62 8.16 9.60 9.98	2.98 3.91 4.81 5.65 7.39	
817-9151 817-9152 817-9153 817-9154 817-9156	150VC1L 150VC2L 150VC3L -150VC4L 150VC6L	1			4.95 5.45 5.80 6.20 6.73	3.31 3.47 3.68 3.94 4.25	2.48 2.73 2.90 3.09 3.36	
817-9158 817-9161 817-9162 817-9163 817-9164	150VC8L 150VJ1L 150VJ2L 150VJ3L 150VJ4L				7.45 4.95 5.45 5.80 6.20	4.73 3.31 3.47 3.68 3.94	3.72 2.48 2.73 2.90 3.09	
817-9166 817-9168	150VJ6L 150VJ8L				6.73 7 45	4.25 4.73	3.36 3.72	

AS NEW TYPES ARE RELEASED, ALLIED WILL STOCK THEM. FOR PROMPT PRICE AND DELIVERY QUOTATIONS ON QUANTITIES LARGER THAN SHOWN, CONTACT YOUR NEAREST ALLIED FACILITY.

SEE PAGE 8 FOR DISCRETE DEVICES

Integrated Circuit Directory

CIRC	UITS	DISCRETE DEVICES							- E	ACH	
Stock Number	Туре	Circuit Function	1- 24	25- 99	100- Up	Stock Number	Туре	Circuit Function	1-	25- 99	100- Up
569-2900 569-2902 569-2904 569-2908 569-2910	CA3018 CA3018A CA3019 CA3026 CA3036	Transistor Array Transistor Array Transistor Array Transistor Array Transistor Array	2.08 2.88 2.68 2.65 1.90	1.21 1.65 1.21 1.60 1.15	1.85 1.45 1.05 1.39	551-9650 551-9652 551-9654 551-9656 551-9658	74H10DC 74H10PC 74H110C 74H11PC 74H20DC	Triple 3 Gate Triple 3 AND Gate Dual-4 NAND Gate	.75 .63 1.20 .73 .75	.56 .51 .85 .56	.46 .41 .71 .48 .50
569-2912 569-2914 569-2916 569-2918 569-2920	CA3039 CA3045 CA3046 CA3054 CA3064	Transistor Array 3 Xstr Array & Diff PR 3 Xtra Array & Diff PR Dual Diff Amp Array TV Automatic FTC	2.88 1.95 1.95 1.95 1.95 2.18	1.21 1.21 1.21 1.21 1.21 1.35	1.85 1.85 1.85 1.85 1.17	551-9660 551-9662 551-9664 551-9666 551-9668	74H20PC 74H21DC 74H21PC 74H21PC 74H22DC 74H22PC	Dual 4 AND Gate Dual 4 NAND Gate/OC	.63 .93 .63 .75 .63	.51 .66 .51 .60 .51	.41 .55 .41 .50 .41
569-2922 569-2924 569-2926 569-2928 569-2930	CA3065 CA3066 CA3067 CA3075 CA3076	TV/FM Sound System TV Chroma Proc TV Chroma Demod FM Sound If FM Gain Block	2.28 4.18 4.18 2.13 2.00	1.39 2.78 2.78 1.42 1.35	1.21 2.32 2.32 1.18 1.12	551-9670 551-9672 551-9674 570-7111 551-9676	74H30DC 74H30PC 74H40DC 74H40PC 74H50DC	Single 8 Gate Dual 4-Buffer Dual 2 W:2-Input AOI-Exp	.75 .63 .75 .63 .83	.60 .51 .60 .51 .67	.50 .41 .50 .41 .56
569-2932 569-1302 569-1303 569-1300 569-1301	CA3086 LM101AD LM101AH LM101D LM101H	Transistor Array Gen Purpose Op Amp Gen Purpose Op Amp Hi Pert Op Amp Gen Purpose Op Amp	1.85 5.50 5.50 8.00 7.50	.64 3.80 3.80 5.10 4.74	.55 3.25 3.25 4.25 3.95	570-7112 551-9678 570-7113 551-9680 570-7114	74H50PC 74H51DC 74H51PC 74H52DC 74H52PC	Dual 2 W:1 AOI-Exp Dual 2 Wide 2-Input AOI Dual 2 W 21 AOI Gate 4 W 2-2-2-3 Input AOI	.63 .83 .63 .83 .63	.51 .67 .51 .67 .51	.41 .56 .41 .56 .41
569-1304 569-1305 569-1306 569-1307 569-1308	LM102H LM104H LM105H LM107H LM108AH	Voltage Follower Neg Voltage Follower Voltage Regulator Gen Purpose Op Amp Super Beta Op Amp	14.25 30.00 18.10 9.13 29.25	11.40 24.00 14.50 5.10 23.40	9.50 20.00 12.00 4.25 19.50	570-7115 570-7116 570-7117 570-7118 551-9682	74H53DC 74H53PC 74H54DC 74H54PC 74H55DC	Exp 4-W 2-In Inverter 2-2-2-3 AOI Gate Exp 4-W 2-In Exp	.90 .63 .90 .63 .93	.71 .51 .71 .51 .71	.61 .41 .61 .41 .59
569-1309 569-1310 569-1311 569-1312 569-1315	LM108H LM109K LM110H LM111H LM201AD	Super Beta Op Amp 5V Regulator Voltage Follower Voltage Comparator Gen Purpose Op Amp	18.75 13.90 14.25 16.50 5.13	15.00 12.80 11.40 14.40 3.50	12.50 10.95 9.50 11.10 3.05	570-7119 551-9684 551-9686 551-9688 570-7120	74H55PC 74H60DC 74H60PC 74H61DC 74H61PC	Dual 4 Expander Dual 4 Expander Triple 3 Expander	.63 .75 .63 .75 .63	.51 .60 .51 .60 .51	.41 .50 .41 .50 .41
569-1236 569-1316 569-1313 569-1314 569-1317	LM201AF LM201AH LM201D LM201H LM207H	Gen Purpose Op Amp Gen Purpose op Amp Gen Purpose op Amp Gen Purpose Op Amp Gen Purpose Op Amp	9.50 5.13 2.25 2.25 7.38	5.20 3.50 1.50 1.50 4.20	4.95 3.05 1.25 1.25 3.50	570-7121 570-7122 551-9690 570-7123 551-9692	74H62DC 74H62PC 74H71DC 74H71PC 74H72DC	4-W 3-2-2-3 In Expander J-K-S Flip Flop JK FF With AND Inputs	.90 .63 · 1.60 1.28 1.35	.71 .51 1.22 1.00 .93	.59 .41 .93 .84 .79
569-1319 569-1318 569-1320 569-1321 569-1322	LM208AH LM208H LM209K LM301AD LM301AH	Super Beta Op Amp Super Beta Op Amp SV Regulator Gen Purpose Op Amp Gen Purpose Op Amp	21.75 12.80 7.38 1.88 1.20	17.40 10.20 5.05 1.30 .78	14.50 8.50 4.40 1.10 .65	570-7124 551-9694 570-7125 551-9696 551-9698	74H72PC 74H73DC 74H73PC 74H74DC 74H74PG	Dual JK Fhp Flop Dual JK FF Dual D-Type FF	1.12 1.98 1.15 1.69 1.15	.85 1.25 .84 1.10 .84	.73 1.95 .68 .90
569-1323 569-1324 569-1325 569-1327 569-1326	LM301AN LM302H EM304H LM305AH LM305H	Gen Purpose Dp Amp Voltage Follower Neg Voltage Follower Voltage Follower	1.13 5.50 6.00 4.00 5.75	.72 3.40 3.80 2.80 3.70	.60 2.85 3.25 2.15 3.10	551-9700 570-7126 551-9702 570-7127 570-7128	74H76DC 74H76PC 74H78DC 74H78PC 74H87DC	Dual JK M-S FF Dual J-K M-S FF Cual JK FIP Flop Dual JK FF (Com Clock) 4-Bit True Comp	2.15 1.50 2.15 1.50 12.15	1.40 1.20 1.40 1.20 9.70	1.15 1.90 1.15 1.00 8.10
569-1328 569-1329 569-1331 569-1330 569-1278	LM307H LM307N LM308AH LM308H LM309K	Comp Op Amp Gen Purpose Op Amp Super Beta Op Amp Super Beta Op Amp 5V Regulator	1.20 1.13 11.10 3.75 4.25	.78 .72 9.00 2.20 2.90	.65 .60 7.50 1.85 2.59	570-7102 570-7103 570-7104 570-7105 570-7106	74H101DC 74H102DC 74H103DC 74H103PC 74H106DC	50 MHZ JK FF 50 MHZ Flip Flop 50 MHZ Dual JK Flip Flop Dual 50 MHZ JK FF	1.45 1.45 1.65 1.40 1.48	1.00 .95 1.20 1.10 1.20	.84 .78 1.10 .93
569-1332 569-1333 569-1334 551-7914 551-7916	LM310H LM311H LM376N MC1458CG MC1458CP1	Voltage Follower Voltage Comparator Voltage Regulator Dual Hi Pert Op Amp Dual Hi Pert Op Amp	5.75 5.63 2.48 2.25 2.00	3.75 3.90 1.95 1.80 1.50	3.10 3.00 1.50 1.55 1.30	570-7107 570-7108 570-7109 570-7110 551-9708	74H106PC 74H108DC 74H108PC 74H183DC 74S00DC	Dual JK 50 MHZ FF Carry Save Adder Quad 2 Gate	1.36 1.58 1.34 5.70 1.03	1.19 1.26 1.07 4.55 .72	.92 1.05 .89 3.80 .59
551-7918 551-7928 551-7922 551-4142 551-4146	MC1458G MC1458P1 MC1558G SN7524J SN7525J	Dual Hi Perl Op Amp 2 Chain Sense Amp 2 Chain Sense Amp	3.75 2.18 9.38 9.25 5.00	2.00 1.65 7.50 5.88 3.18	1.75 1.45 6.50 4.90 2.65	570-7129 551-9710 570-7130 551-9712 570-7131	74S00PC 74S03DC 74S03PC 74S04DC 74S04PC	Quad 2 Gate/Open Coll Hex Inverter	.85 1.83 .85 1.25 1.05	.50 .72 .60 .88 :78	.49 .59 .49 .71
570-7234 570-7235 570-7236 570-7237 570-7238	\$N75107J \$N75108J \$N75109J \$N75110J \$N75450J	Dual Line Receiver Dual Line Receiver Dual Line Driver Dual Line Driver Dual Peripheral Divr	6.10 6.10 6.38 6.38 2.63	3.75 3.75 3.93 3.93 1.56	3.25 3.25 3.41 3.41 1.40	551-9714 570-7132 570-7133 570-7134 570-7139	74S05DC 74S05PC 74S10DC 74S11DC 74S15DC	Hex Inverter Open Coll Hex Inverter D C Triple 3 ANAVD Gate Triple 3 AND Gate Triple 3 AND Gate O. C.	.25 1.05 1.83 1.03 1.83	.88 .78 .72 .72 .72	.71 .69 .59 .59
570-7239 570-7240 570-7384 570-7385 570-7386	SN75450N SN75451P SN75452P SN75453P SN75454P	Dual Perpheral Drvr Dual Perpheral Drvr 5V Dual Perph Drver 5V Dual Perph Drver 5V Dual Perph Drver	2.48 1.90 2.05 2.05 2.05 2.05	1.45 1.13 1.28 1.28 1.28	1.32 1.02 1.10 1.10 1.10	570-7140 551-9716 570-7141 551-9718 570-7142	74S15PC 74S20DC 74S20PC 74S20PC 74S22DC 74S22PC	Triple 3 AND Gate 0. C. Dual 4 Gate Dual 4 Gate Open Coll Dual 4 Gate Open Coll	.85 1.83 .85 1.03 .85	.60 .72 .60 .72 .60	.49 .59 .49 .59 .49
570-7387 570-7388 570-7000 570-7001 570-7002	SN75491N SN75492N 54H00DM 54H01DM 54H04DM	Mox-Led 7-Seg Driver Mox-Led 7-Seg Driver Quad 2 Gate Quad 2 Gate Open Coll. Hex Inverter	2.75 3.13 4.03 4.83 4.78	1.72 1.99 2.45 2.45 3.05	1.55 1.80 2.05 2.05 2.55	551-9720 570-7143 551-9722 570-7144 551-9724	74S40DC 74S40PC 74S64DC 74S64PC 74S65DC	Dual 4 Buffer 4-2-2-3 AOI Gate AND-OR Invert O.C.	1.03 .85 3.00 .85 1.03	.72 .60 .72 .60 .72	.59 .49 .59 .49 .59
570-7003 570-7004 570-7005 570-7010 570-7012	54H05DM 54H08DM 54H10DM 54H11DM 54H20DM	Hex Inverter Quad 2 AND Gate Triple 3 Gate Triple 3 AND Gate Dual 4 NAND Gate	4.78 5.00 4.83 5.00 4.83	3.05 3.20 2.45 3.28 2.45	2.55 2.65 2.05 2.65 2.05	570-7145 551-9926 570-7146 570-7135 570-7136	74S65PC 74S74DC 74S74PC 74S112DC 74S113DC	AND-OR Invert O.C. Dual D-Type FF Dual JK FF	.85 2.35 1.95 2.35 2.35	.60 1.65 1.37 1.65 1.65	.49 1.34 1.10 1.34 1.34
570-7013 570-7014 570-7015 570-7016 570-7017	54H21DM 54H22DM 54H30DM 54H40DM 54H50DM	Dual 4 AND Gate Dual 4 AND Gate C. Single 8 Gate Dual 4 Suffer Dual 2 W/2 Input AOI/Exp	4.03 4.83 4.03 3.60 4.03	2.45 2.45 2.45 2.80 2.45	2.05 2.05 2.05 2.35 2.05	570-7137 551-9728 570-7138 569-2775 569-2776	74S114DC 74S140DC 74S140PC 78M05HC 78M05UC	Dual JK FF Dual-4 NAND Drvr to-5 5V 500MA Volt Reg to-220 5V 500MA Volt Reg	2.35 1.03 .85 3.00 3.20	1.65 .72 .60 1.95 2.05	1.34 .59 .49 1.50 1.60
570-7018 570-7019 570-7020 570-7021 570-7022	54H51DM 54H52DM 54H54DM 54H60DM 54H61DM	Dual 2 Wide/2 Input AOI 4 Wide 2-2-2-3 Input AO 4 W 2-In Inverter Duar4 Expander Triple 3 Expander	4.03 4.03 4.03 4.03 4.03	2.45 2.45 2.45 2.45 2.45 2.45	2.05 2.05 2.05 2.05 2.05 2.05	569-2777 569-2778 569-2779 569-2780 569-2781 569-2782	78M06HC 78M06UC 78M08HC 78M08UC 78M12HC 78M12UC	to 5 6V SOMA Volt Reg to 220 6V SOMA Volt Reg to 5 8V SOMA Volt Reg to 5 8V SOMA Volt Reg to 5 12V SOMA Volt Reg to 220 12V SOMA Volt Reg	3.00 3.20 3.00 3.20 3.10 3.28	1.95 2.05 1.95 2.05 2.05 2.15	1.50 1.60 1.50 1.60 1.55 1.65
570-7023 570-7024 570-7025 570-7026 570-7027	54H71DM 54H72DM 54H73DM 54H74DM 54H76DM	J-K M-S FF JK -IMD linputs) Dual JK FF Dual D-Type FF Dual J-K M-S FF	7.80 5.88 9.75 7.88 10.38	4.45 3.80 6.25 5.05 6.60	3.76 3.15 5.20 4.20 5.50	569-2783 569-2784 569-2785 569-2786	78M15HC 78M15UC 78M20HC 78M20UC 78M24HC	to-5 15v 500MA Volt Reg to-220 15V 500MA Volt Reg to-5 20V 500MA Volt Reg to-2 20 20V 500MA Volt Reg to-5 24V 500MA Volt Reg	3.10 3.28 3.10 3.28 3.10	2.05 2.15 2.05 2.15 2.05 2.15	1.55 1.65 1.55 1.65 1.55
570-7028 570-7006 570-7007 570-7008 570-7009	54H78DM 54H101DM 54H102DM 54H103DM 54H186DM	Dual JK FF (Com Clock) 50 MHZ JK FF 50 MHZ JK FF 50 MHZ JK FF 50 MHZ JK FF Dual JK Edge/Tngg FF	10.38 7.09 7.00 8.00 7.75	6.60 4.80 4.80 5.95 5.75	5.50 4.08 4.00 4.95 4.80	569-2787 569-2788 551-8984 551-9150 570-7275	78M24UC 93H00DC 93H72DC 93H87DC	to- 24V SUMM Volt Reg 4-Bit Shift Register JK M S Flip Flop 4-Bit Ture Comp	3.28 8.63 8.63 12.15	2.15 5.60 5.60 9.70	1.65 4.85 4.85 8.10
570-7011 570-7029 570-7030 570-7031 570-7032	54H183DM 54S00DM 54S04DM 54S20DM 54S40DM	Dual Full Adder Quad 2 Cate Hex Inverter Dual 4 Gate Dual 4 Buffer	28.50 13.63 12.45 13.63 11.47	22.80 8.27 9.30 8.27 9.17	19.00 6.43 7.71 6.43 7.11	570-7274 551-8980 551-9126 551-9044 551-9068	93H183DC 93L00DC 93L01DC 93L08DC 93L09DC	Carry Save Adder Low Power 4-Br S-R Low Pow 1-To-10 Decoder Low Power 8-Br Latch Low Power Dual 4-In Mul	5.79 5.65 3.38 7.50 3.15	4.55 3.95 2.80 5.60 2.25	3.80 3.45 2.45 4.85 1.95
570-7033 551-9636 570-7100 551-9638 570-7101	54S64DM 74H00DC 74H00PC 74H01DC 74H01PC	4-2-2-3 AOI Gate Quad 2 Gate/Open Coll	13.63 .75 .63 83 .63	8.27 .48 .51 .67 .51	6.43 .40 .41 .56 .41	551-9018 551-9132 551-9072 551-9048 551-9022	93L10DC 93L11DC 93L12DC 93L14DC 93L16DC	L P Bod Decade Counter LP 1-01-16 Digital Dec LP 8-Input Digital Multi Low Power Quad Latch Low Power 4-Bit BC	4.75 7.50 3.15 3.00 4.75	3.70 5.60 2.25 2.80 3.70	3.20 4.85 1.95 2.45 3.20
551-9640 551-9642 551-9644 551-9646 551-9648	74H04DC 74H04PC 74H05DC 74H05PC 74H08DC	Hex Inverter Hex Inverter-Open Coll Quad 2 AND Gate	.93 .73 .93 .73 1.20	.73 .56 .73 .56 .92	.61 .48 .61 .48 .76	551-9154 551-9076 551-9034 551-9160 551-8988	93L18DC 93L21DC 93L22DC 93L24DC 93L28DC	LP 8-1 P Priority Cnc LP Dual 's Decoder LP Quad 2-Input Mulb LP 5-8t Comp LP8-8t Shrtt Reg	9.38 3.98 3.75 6.20 8.00	6.90 2.80 2.25 5.70 6.90	6.00 2.45 1.95 4.95 6.00

INTEGRATED

	nteg	grated Circuit Di			_
Stock	Туре	Circuit	1-	25-	10U-
Number		Function	24	99	Up
570-7276	93805DC	Variable Modulo Counter	16.20	13.30	10.50
570-7277	93812DC	8-Input Multiplexer	13.00	8.23	6.50
570-7278	93841DC	4-Bit Arith Logic Unit	21.00	17.50	14.00
570-7279	93842DC	Carry Look Ahead	6.50	4.05	3.25
570-7329	95H00DC	HS 4-Bit Universal Reg	16.70	13.80	12.50
570-7330 570-7331 570-7332 570-7333 570-7334	95H02DC 95H03DC 95H04DC 95H22DC 95H23DC	HS Dual 4-In 07/Nor HS Triple 2-In 07/Nor HS Quad 2-In Nor HS Dual 4 Gate Clock Driver/3 Gate	3.15 3.15 3.15 3.15 3.15 3.15	2.85 2.85 2.85 2.85 2.85 2.85	2.50 2.50 2.50 2.50 2.50 2.50
570-7335	95H24DC	HS Quad 2 Gate HS Quad - O Flip Flop HS J-K FF 5 Bit Comparator HS 2-Bit Adder/Subtr	3.15	2.85	2.50
570-7336	95H28DC		7.52	6.10	5.55
570-7337	95H29DC		6.25	4.25	4.00
570-7338	95H55DC		8.13	5.55	5.20
570-7339	95H84DC		16.00	14.50	13.60
570-7340 570-7341 570-7342 570-7343 551-9184	95H90DC 95L22DC 95L23DC 95L24DC 96L02DC	HS 250 MHZ Prescaler LP Dual Gate LP Tople OR-NOR Gate LP Quad Gate LP Dual Heting 1 Shot	16.00 3.13 3.13 3.13 8.88	14.50 2.30 2.30 2.30 6.60	13.60 2.00 2.00 2.00 2.00 5.75
569-1490 569-1500 569-1507 569-1580 569-1540	702DC 703HC 706APC 709DC 709HC	DC Wideband Amp RFIF Limiting Amp Adio Amplifier Gen Purpose Op Amp	5.63 1.50 3.20 1.38 1.38	3.60 1.20 2.05 1.05 1.05	3.00 1.00 1.70 .90
569-1660	710DC	Hi Speed Comparator Dual Comparator Hi Speed Op Amp	1.50	1.05	.90
569-1620	710HC		1.38	1.05	.90
569-1710	711DC		1.50	1.05	.90
569-1728	715DC		10.38	6.60	5.50
569-1720	715HC		8.88	5.94	4.95
569-1716 569-1730 569-1735 569-1750 569-2040	716HC 720DC 722FC 723DC 739DC	Audio Amp AM Radio Systems DA Current Source Voltage Regulator	9.38 2.43 22.50 3.13 5.50	5.94 1.63 18.00 2.34 2.34	4.95 1.35 15.00 1.95 2.75
569-1840	725HC	Instrumentation Op Amp	13.58	9.00	7.50
569-1844	726HC	TSS Transistor Parr	14.00	9.00	7.50
569-1860	727HC	Temp Controlled Preamp	16.88	13.50	11.25
569-1870	730HC	Offerential Amp	7.25	4.74	3.95
569-1875	732DC	F.M. Stereo MPX Decoder	2.25	1.40	1.25
569-2000 569-2002 569-2040 569-2045 569-2060	733DC 734DC 739DC 739PC 740HC	Video Amp Precision Comparator Fet Op Amp	6.13 6.28 5.50 2.75 14.93	3.90 3.77 3.30 1.95 11.94	3.25 3.28 2.75 1.65 9.95
569-2145	741DC	Freq Comp Op Amp Zero Crossing AC Trig	2.38	1.40	1.25
569-2100	741HC		1.30	.83	.72
569-2075	741HM		2.13	1.55	1.05
569-2160	741TC		1.05	.70	.61
569-2164	742DC		4.43	3.54	2.95
569-2170	746DC	Color TV Chroma Demod	3.13	1.83	1.67
569-2240	747DC	Dual Freg Comp Op Amp	8.50	5.40	4.50
569-2270	748DC	Hr Perf Op Amp	2.00	1.20	1.10
569-2380	749DC	Dual Audio Preamplitier	4.63	2.75	2.30
569-2390	750DC	Dual Power Comparator	11.13	6.75	5.95
569-2395	753TC	FM Gain Block AGC If Amplifier PLL Stereo Decoder High Speed Comparator FM Stereo MPX Decoder	2.28	1.52	1,27
569-2420	757DC		2.60	1.66	1,39
569-2430	758DC		7.13	4.75	3,95
569-2443	760DC		6.28	3.77	3,28
569-2465	767DC		1.95	1.21	1,05
569-2470	768DC	FM Stereo Decoder	2.50	1.92	1.60
569-2475	769DC	FM Stereo Decoder	2.38	1.50	1.25
569-2485	776DC	Programable op Amp	7.00	4.90	3.75
569-2520	777DC	Prac Op Amp	4.13	2.70	2.35
569-2550	780DC	Phase Locked Loop	3.13	1.82	1.67
569-2555	781DC	Gan Controlled If Amp	3,13	1.82	1.67
569-2565	786DC	Pal Chroma Demod	2,50	1.53	1.33
569-2600	791KC	Power Op Amp	23,10	14.95	12.50
569-2640	795DC	Four Quad Mult	12,13	7.14	5.95
569-2700	796HC	Double Bal Mcd Demod	,1,98	1.22	1.06
551-9350	900HC		4.15	2.60	1.95
551-9351	901HM		62.50	50.00	41.80
551-9352	902HC		4.15	2.60	1.95
551-9354	903HC		6.38	3.65	3.00
551-9356	904HC		5.50	3.10	2.60
551-9358	905HC		8.25	5.15	3.85
551-9360	906HC		6.75	4.25	3.20
551-9362	907HC		4.15	2.60	1.95
551-9376	914HC		4.15	2.60	1.95
551-9378	915HC		6.38	3.65	3.00
551-9380 551-9384 551-9386 551-9422 551-9424	921HC 926HC 927HC 930DC 931DC	Flip Flop JK Flop Flip JK Dual 4 Gate Exp Clocked FF	3.83 8.13 6.38 .93 3.78	2.15 4.60 3.65 .74 2.60	1.80 3.85 3.00 62 2.15
551-9426 551-9428 551-9430 551-9432 551-9434	932DC 933DC 935DC 936DC 937DC	Dual 4 Buffer Dual 4 Extender Hex Inverter Hex Inverter Hex Inverter Hex Inverter Hex Inverter	1.04 .93 1.09 1.09 1.09	84 .74 .88 .88	.76 .62 .73 .73
551-9436 551-9438 551-9440 551-9442 551-9444	941DC 944DC 945DC 946DC 948DC	Monostable Multi DualBuffer RS Clocked FF Ouad 2 Gate RS Clocked FF	10.25 1.09 1.26 1.03 1.26	5.80 .88 1.01 .82 1.01	4.85 .73 .84 .69
551-9446 551-9448 551-9449 551-9398 551-9400	949DC 950DC 951DC 952DC 953DC	Quad 2 Gate AC Coupled RS FF Multiwitrator 1 Shot Dual 2 Inverter Triple 2-2-3 Gate	1.03 7.25 7.25 2.25 2.25	5.80 5.80 1.50 1.50	4.8 4.8 1.2 1.2
551-9402	954DC	Dual 4-Input Gate	2.25	1.50	1.2!
551-9404	955DC	Single 9-Input Gate	2.25	1.50	1.2!
551-9406	956DC	Dual 2-Input Gate	2.25	1.50	1.2!
551-9388	957DC	Binary	3.63	2.40	2.0!
551-9390	958DC	Decade Counter	11.20	9.00	7.5!
551-9392 551-9394 551-9395 551-9397 551-9399	959DC 960DC 961DC 962DC 963DC	Buffer Decoder Decoder Druer Dual 4 Gate Exp Triple 3 Gate Triple 3 Gate	14.38 15.70 1.03 1.03 1.03	8.00 12.55 .82 .82 .82	6.7 10.5 .6 .6
551-9401	964DC	3-3-1 Gate Quad 1 Gate Quad 2 Gate Used 2 Gate Uk Flip Flop Quad 2 -input & Gate	2.25	1.50	1.2
551-9410	965DC		2.25	1.50	1.2
551-9412	966DC		2.25	1.50	1.2
551-9403	967DC		3.63	2.40	2.0
551-9405	971DC		2.25	1.50	1.2

		CIRCUITS				
				ICH	100-	
Stock Number	Туре	Circuit Function	1- 24	25- 99	Up	
551-9420 551-9407 551-9396 551-9318 551-9320	972DC 974DC 989DC 1800PC 1801PC	Quad 2 Gate UK Flip Floop Mod 16 Counter Dual 5 Input NAND (6k) Dual 5 Input NAND (2k)	2.25 5.88 11.20 72 .72	1 50 4.60 9.00 .58 .58	1.25 3.85 7.50 .48	
551-9322 551-9324 551-9328 551-9330	1802PC 1803PC 1805PC 1806PC	8 Input NAND (5k) 8 Input NAND (14k(10 Input NAND (2k) Quad 2 NAND (6k)	.72 .72 .72 .72	.58 .58 .58 .58	.48 .48 .48	
551-9332 551-9334 551-9336 551-9340	1807PC 1808PC 1809PC 1810PC 1811PC	Quad 2 NAND (2k) Quad 2 OR Gate (6K) Quad 2 OR Gate (2 K) Quad 2 NOR Gate (5 K) Quad 2 NOR Gate (5 K) Quad 2 NOR Gate (2 K)	.72 .72 .72 .72 .72 .72	.58 .58 .58 .58	.48 .48 .46 .48	
551-9342 551-9344 551-9346 569-2906 569-3100	1812PC 1813PC 1814PC 3025AKIT 3100DL	Quad Exclusive OR Quad Latch Quad Latch PFS-25 Demo Kit Dual 5-Input Gate	1.28 2.70 2.63 148.80 13.50	1.02 2.16 2.10 7.50	.85 1.80 1.75 6.00	
569-3101 569-3102 569-3103 569-3200 569-3201	3101DL 3102HC 3102HL 3257ADC 3258ADC	Dual JF FF 3-Input Gate 5x7-64 ASC II Char Gen 5x7x64 Char Gen-625NS	12.02 9.00 12,02 25.05 24.05	10.00 5.00 10.00 20.00 19.00	8.00 4.00 8.00 16.70 16.00	
569-3202 569-3203 569-3264 569-3205 569-3206	3258BDC 3258CDC 3258DDC 3260ADC 3260BDC	5x746 Char Gen 695NS 5x746 Char Gen-780NS 5x7464 Char Gen-1000NS 7x9x64 Char Gen-625NS 7x9x64 Char Gen-800NS	21.60 20.46 19.21 35.00 23.00	17.10 16.15 15.20 27.50 18.40	14.40 13.60 12.80 22.00 14.70	
569-3300 569-3301 569-3302 569-3303 569-3304	3300FC 3300FL 3300HC 3300HL 3325HC	25 Bit 1 Phase ST SR 4x64 2 Phase Dyn SR	13.00 10.86 9.00 11.63 10.25	6.80 8.50 4.80 6.25 5.50	5.80 7.25 4.00 5.20 4.60	
569-3305 569-3306 569-3307 569-3308 569-3309	3326HC 3326HL 3329HC 3330HC 3331HC	3x66 2 Phase Dyn SR 512 Bit 2 Phase Dyn SR 480 Bit 2 Phase Dyn SR 500 Bit 2 Phase Dyn SR	10.00 12.38 11.00 11.00 11.00	5.40 6.60 5.85 5.85 5.58	4.40 5.50 4.90 4.90 4.90	
569-3310 569-3311 569-3312 569-3313 569-3314	3341DC 3342DC 3343HC 3344HC 3345HC	4x64 Frlo Memory Quad 64 BH Stat SR Qual 128 BH Stat SR Dual 132 BH Stat SR Dual 136 BH Stat SR	20.25 10.10 13.13 13.13	16.20 8.90 7.25 7.25 7.25	13.50 6.75 5.85 5.85 5.85	
569-3315 569-3316 569-3317 569-3318 569-3355	3346HC 3347DC 3348DC 3349DC 3355DC	Dual 144 Bit Static SR Quad 80 I fib Stat SR Hex 32-bit Stat SR W. BE Hex 32-bit Stat SR Hi-Speed 1024 bit St Sr	13.13 11.28 12.02 13.50 28.00	7.25 8.90 8.75 7.00 22.40	5.85 7.50 8.00 6.00 18.65	
569-3319 569-3503 569-3712 569-3713 569-3722	3383HC 3512ADC 3701FC 3701FM 3750DC	256 Bit 2 Phase Dyn SR ASC II to Selectric ROM 6 Chan Mplx Switch 10 Bit D A Converter	10.38 30.00 14.88 15.03 37.58	5.50 22.00 9.32 12.00 29.00	4.60 12.00 6.60 10.00 25.00	
569-3723 569-3724 569-3725 569-3800 569-3801	3750DL 3751DC 3751DL 3800DC 3800DL	12 Bit A D Converter	45.09 41.33 41.33 45.29 55.61	34.00 30.00 30.00 30.00 37.00 40.00	30.00 27.50 27.50 31.00 37.00	
569-3802 569-3803 5,69-3804 569-3805 569-3806	3801DC 3801DL 3803DC 3805DC 3806ADC	10 Bit S.P. P.S. Conv PPS-25 Keyboard Expndr .PPS-25 Artimetic Unit .PPS-25 3025 Timing Unit	33.07 38.00 30.06 28.00 37.58	27.00 31.00 24.00 22.00 30.00	22.00 25.00 20.00 18.00 25.00	
569-3808 569-3809 569-3810 569-3811 569-3813	3807DC 3808DC 3809DC 3810ADC 3811DC	PPS-25 Keyboard Unit PPS-25 Memory Expander PPS-25 3025 Control ROM PPS-25 Jospay Unit	30.06 18.04 18.04 30.00 18.04	24.00 15.00 15.00 22.00 15.00	20.00 12.00 12.00 12.00 12.00	
569-3814 569-3816 570-7034 570-7035 570-7036	3814DC 3816DC 5400DM 5401DM 5402DM	412 Digit DVM Array Programmable Dinder Quad 2 Gate Quad 2 Gate pon Coll Quad 2 NOR Gate	25.00 15.00 4.03 4.03 4.20	18.50 10.00 2.45 2.45 2.70	16.25 8.80 2.05 2.05 2.25	
570-7037 570-7038 570-7039 570-7040 570-7041	5403DM 5404DM 5405DM 5406DM 5407DM	Quad 2 Gate Open Coll Hex Inverter Hex Inverter Open Coll. 30V Hex Inv Drur 30V Hex Buffer Drur	4.03 4.78 4.78 10.00 10.00	2.45 3.05 3.05 6.40 6.40	2.05 2.55 2.55 5.30 5.30	
570-7042 570-7043 570-7044 570-7046 570-7048	5408DM 5409DM 5410DM 5411DM 5413DM	Quad 2 AND Gate Quad 2 AND Gate OP Coll Triple 3 Gate Triple 3 AND Gate OP Coll Dual-4 Schmitt Trigger	5.00 5.00 4.03 5.00 5.50	3.20 3.20 2.45 3.20 3.85	2.65 2.65 2.05 2.65 3.20	
570-7054 570-7057 570-7063 570-7064 570-7065	5416DM 5417DM 5420DM 5425DM 5426DM	Hex Inv. Buffer Drvr 15V Hex Buffer Drvr Dual 4 KORt W Strobe Quad 2 H. Volt Gate	8.00 8.00 4.03 5.13 5.00	5.10 5.10 2.45 3.55 3.20	4.25 4.25 2.05 2.95 2.65	
570-7066 570-7067 570-7068 570-7069 570-7070	5427DM 5430DM 5432DM 5437DM 5438DM	Triple 3 Gate Single 8 Gate Quad 2-Input NOR Gate Quad 2 Buffer Quad 2 Buffer Open Coll	5.13 4.03 4.75 5.88 5.88	3.55 2.45 3.35 3.80 3.80	2.95 2.05 2.90 3.15 3.15	
570-7071 570-7072 570-7073 570-7074 570-7075	5440DM 5442DM 5443DM 5444DM 5445DM	Dual 4 Buffer BCD-DEC Decoder Driver Excess 3 to DEC Decoder Excess 3 GR DEC DEC BCD-DEC Dech Driv (30V)	4.03 18.15 28.00 28.00 37.50	2.80 14.50 22.50 22.50 30.00	2.35 12.10 18.70 18.70 25.00	
570-7076 570-7077 570-7078 570-7079 570-7080	5447DM 5448DM 5450DM 5451DM 5453DM	BCD-to-7 SEG Decoder BCD-7 SEG Decoder Dual AND OR Invert Exp Dual 2 Input AOI Gate 4 W 21, 6-OR Invert Exp	28.00 27.50 4.03 4.03 4.03	22.50 22.00 2.45 2.45 2.45 2.45	18.70 18.35 2.05 2.05 2.05	
570-7081 570-7082 570-7083 570-7084 570-7085	54540M 5460DM 5470DM 5472DM 5473DM	4 W 2L & DR Invert Exp Dual 4 Expander J-K Filp Flop J-K M-S FF (& Inputs) Dual J-K M-S FF	4.03 4.03 6.25 5.88 9.75	2.45 2.20 4.00 3.80 6.25	2.05 1.85 3.35 3.15 5.20	
570-7086 570-7087 570-7088 570-7089 570-7090	5474DM 5475DM 5476DM 5480DM 5482DM	Dual D-Type FF Quad Latch Dual J-K M-S Preset & Cle Gated Full Adder 2-8th Binary Full Adder	7.88 11.13 10.38 10.20 16.80	5.05 7.10 6.60 8.15 13.45	4.20 5.90 5.50 6.80 11.20	

SEE PAGE 8 FOR DISCRETE DEVICES

Integrated Circuit Directory

	RCUITS				
Stock Number	Туре	Circuit Function	1-24	25- 99	100- Up
570-7091 570-7092 570-7093 570-7094 570-7095	5483DM 5486DM 5490DM 5491DM 5492DM	4-Bit Binary Full Adder Quad Exclusive 0R Decade Counter 8-Bit Shift Reg Owide By 12 Counter	18.90 5.13 15.50 21.60 15.50	15.10 3.30 12.40 17.30 12.40	12.60 2.75 10.35 14.40 10.35
570-7096 579-7097 579-7096 570-7099 551-9500	5493DM 5494DM 5495DM 5496DM 7400DC	4-Bit Binary Counter 4-Bit Shift Register 4-Bit RL-Shift Register 5-Bit Shift Register Quad Z Gate	15.50 14.50 14.50 16.20 .75	12.40 9.25 9.25 12.95 .60	10 35 7.78 7.78 18.80 .58
551-9501 551-9502 551-9503 551-9504 570-7147	7400PC 7401DC 7401PC 7402PC 7402PC 7402PC	Quad 2 Gate:Open Coll Quad 2 NOR Gate	.55 .75 .55 .75	.44 .60 .44 .60	.35 .50 .35 .50 .35
551-9505 551-9506 551-9507 551-9508 551-9509	7403DC 7403PC 7404DC 7404PC 7405DC	Quad 2 Gate Open Golf. Hex Inverter Hex Inverter/Open Coll.	.75 .55 .93 .70 .93	.60 .44 .74 .56 .74	.50 .35 .62 .43
551-9510 551-9511 551-9512 551-9513 551-9514	7405PC 7406DC 7406PC 7407DC 7407PC	30V Hex Inv/Drvt 30V Hex Buffer/Drvt	.70 4.00 1.50 4.00 1.50	.56 3.20 1.20 3.20 1.20	.43 2.65 .96 2.65 .96
551-9515 551-9516 551-9517 551-9518 551-9519	7408DC 7408PC 7409DC 7409PC 7410DC	Ouad 2 AND Gate Quad 2 & Gate/Op Coll. Triple 3 Gate	.98 .60 .98 .60 .75	.78 .48 .78 .48 .50	.65 .37 .65 .37 .50
551-9520 551-9521 551-9522 570-7150 570-7151	7410PC 7411BC 7411PC 7412BC 7412PC	Triple 3 & Gate Triple 3 NAND Gate 0.C.	.55 .98 .60 .88 .55	.44 .78 .48 .66	.35 .65 .37 .55
570-7154 551-9523 551-9524 551-9525 551-9526	7413DC 7413PC 7416DC 7416PC 7417DC	Dual-r Schmitt Trigger 15V Hex Inv:Drvr 15V Hex Buffer:Drvr	2.50 2.00 3.20 2.70 3.20	2.00 1.60 2.60 2.15 2.60	1.65 1.35 2.15 1.80 2.15
551-9527 551-9528 551-9529 570-7187 570-7188	7417PC 7420DC 7420PC 7423DC 7423PC	Dual 4 Gate Dual 4 NOR W.Strobe	2.70 .75 .55 1.30 .80	2.15 .60 .44 1.83 .64	1.89 .50 .35 .85 .50
570-7189 570-7190 551-9530 551-9531 570-7191	7425DC 7425PC 7426DC 7426PC 7427DC	Dual 4 NOR W Strobe Quad 2 Hi Volt Gate Triple Three Gate	1.30 .80 .98 78 1.38	1.03 .64 .78 .63 1.03	.85 .58 .65 .52 .85
570-7192 551-9532 551-9533 570-7193 570-7194	7427PC 7430DC 7430PC 7432DC 7432PC	Single 8 Gate Quad 2-Input NOR Gate	.88 .75 .55 .97	.64 .60 .44 .78 .64	.50 .58 .35 .65
551-9534 551-9535 551-9536 570-7195 551-9537	7437DC 7437PC 7438DC 7438PC 7439DC	Quad 2 Buffer Quad 2 Buffer Open Colf. Quad 2 Buffer O C (ISV)	1.30 1.15 1.30 1.15 1.55	1.03 .90 1.03 .90 1.25	.86 .78 .86 .70 1.95
551-9538 551-9540 570-7196 570-7197 570-7198	7440DC 7440PC 7441DC 7441PC 7442DC	Dual 4 Buffer 8CD-DEC Decoder Driver 1 of 10 Decoder	.75 .55 2.87 2.21 2.60	.60 .44 2.43 1.87 2.18	.58 .35 1.98 1.52 1.78
570-7199 570-7200 570-7201 570-7202 570-7203	7442PC 7443DC 7443PC 7444DC 7444PC	1 of 10 Decoder Excess 3 To Dec Decoder Excess 3 Gray Dec-Door Excess 3 Gray To DD	1.98 3.95 3.26 3.95 3.26	1.58 3.30 2.60 3.30 2.60	1.22 2.70 2.01 2.70 2.61
570 7204 570-7205 570-7206 570-7207 570-7208	7445DC 7445PC 7446DC 7446PC 7447DC	Bod-Dec Door Dryr (30) Bod - To - 7 Seg Decoder Bod - 7 Seg Decoder	5.95 3.49 3.46 2.50 3.35	4.95 2.78 2.92 2.43 2.84	3.95 2.16 2.38 1.89 2.31
570-7209 570-7210 570-7211 551-9542 551-9544	7447PC 7448DC 7448PC 7450DC 7450PC	Bcd - To - 7 Seg Decoder Dual 2W 2 Input AOI Exp	2.85 4.69 2.62 .75 .55	2.27 3.93 2.09 .60 .44	1.76 3.20 1.62 .50 .35
551-9548 551-9580 551-9580 551-9582 551-9584	7451DC 7451PC 7453DC 7453PC 7454DC	Dual 2W Input AOI Exp 4 Wide 2 Input AOI Exp 4 Wide 2 Input AOI Exp	.75 .55 .75 .55 .75	.60 .44 .60 .44 .60	.50 .35 .50 .35 .50
551-9564	7454PC 7460DC 7460PC 7470DC 7470PC	Dual 4 Expander J - K Firp Flop	.55 .75 .55 1.25 1.00	.44 ,60 .44 1.00	.35 .50 .35 .84 .67
551-9566 551-9568 551-9570 551-9571 551-9574	7472DC 7472PC 7473DC 7473PC 7474DC	J-K M&S FF (AND Inputs Dual J-K M-S FF Dual D-Type FF	1.15 .93 1.95 .88 1.65	.92 .74 1.55 .70 1.30	.77 .62 . 1.30 .54 1.10
551-9576 570-7212 570-7213 551-9578 551-9580	7474PC 7475DC 7475PC 7476DC 7476PC	Ouad Latch Dual J-K M-S P & C	.88 1.60 1.45 2.05 1.05	.78 1.35 1.16 1.62 .84	.54 1.18 .90 1.35 .64
570-7214 570-7215 570-7216 570-7217 570-7218	7480DC 7480PC 7482DC 7482PC 7483DC	Gated Full Adder Gated Full Adder 2 - Bit Binary Full Adder 4 - Bit Binary Full Adder	1.65 1.45 2.92 2.25 4 63	1,40 1,16 2,57 1,76 2,85	1.15 1.32 2.01 1.37 2 30
570-7219 551-9582 551-9584 570-7220 570-7221	7483PC 7486DC 7486PC 7490DC 7490PC	Quad Exclusive QR Decade Counter	2.76 1.25 .90 1.81 1.50	2.20 .86 .72 1.53 1.27	1.71 .72 .56 1.24 .99
570-7222 570-7223 570-7224 570-7225 570-7226	7491DC 7491PC 7492DC 7492PC 7493DC	8 - Bit Snift Reg Divide by 12 Ctr 4-Bit Binary Ctr	2.92 2.47 1.79 1.60 1.79	2.57 1.97 1.52 1.27 1.52	2.01 1 53 1.23 .99 1.23

Stock	Tuna	Circuit	1-	EACH 75.	100-
Number	Туре	Circuit Function	24	25- 99	Up
570-7227	7493PC	4 - Bit Shift Register 4 - Bit RL Shift Reg	1,68	1.27	99
570-7228	7494DC		2,92	2.57	2 01
570-7229	7494PC		2,18	1.74	1 35
570-7230	7495DC		2,48	2.10	1.70
570-7231	7495PC		2,18	1.74	1 35
570-7232 570-7233 569-2799 569-2800 569-2809	7496DC 7496PC 7805KC 7805UC 7806KC	5 Bit Shitt Reg 5V To - 3 Voltage Reg 5V. To - 220. Regulator	2.81 2.33 4.25 3.88 6.88	2.37 1.85 2.85 2.70 3.70	1.93 1.44 2.50 2.05 3.25
569-2810	7806UC	6V To - 220. Regulator	3.88	2.70	2.05
569-2819	7808KC	9V To - 3 Voltage Reg	6.88	3 70	3.25
569-2820	7808UC	5V To - 220 Regulator	3.88	2 70	2.05
569-2829	7812KC	2V To - 3 Voltage Reg	6.88	3.70	3.25
569-2830	7812UC	12V To - 220 Regulator	4.13	2.85	2.20
569-2839	7815KC	15V To 3 Ventage Reg	6.88	3 70	3.25
569-2840	7815UC	15V To 220 Regulator	4.13	2 85	2.20
569-2844	7818KC	18V To 3 ventage reg	6.88	3.70	3.25
569-2845	7818UC	18V To - 220 Regulator	4.13	2.85	2.20
569-2849	7824KC	24V To - 3 Ventage Reg	6.88	3.70	3.25
569-2850 551-9588 570-7241 551-9590 570-7242	7824UC 9008DC 9000DM 9081DC 9001DM	24V. To - 220 Regulator JK FF Mulb - Input JK FF	4.13 1.48 8.30 1.48 8.93	2.85 1.07 4 70 1.07 5.05	2.20 .91 3.90 .91 4.20
551-9592 570-7243 551-9594 570-7244 551-9596	9062DC 9002DM 9003DC 9003DM 9004DC	Quad 2 Gate Triple 3 Gate Dual 4 Gate	.80 5.43 .80 5.43	.59 3.05 59 3.05 .59	.50 2.55 .50 2.55 .50
570-7245	9004DM	Dual Exclusive OR Dual 4 Extender	5.43	3.05	2.55
551-9598	9005DC		.80	.59	.50
570-7246	9005DM		5.43	3.05	2.55
551-9600	9006DC		.80	.59	.50
570-7247	9006DM		5.43	3.05	2.55
551-9602	9007 D C	Single 8 Gate AND NOR Gate Dual Buffer	.80	.59	.50
570-7248	9007 D M		5.43	3.05	2.55
551-9604	9008 D C		.80	.59	.50
570-7249	9008 D M		5.43	3.05	2.55
551-9608	9009 D C		1.08	.78	.66
570-7250 551-9610 570-7251 551-9612 570-7252	9009DM 9012DC 9012DM 9014DC 9014DM	Ouad 2-NAND-0 C Quad 2-Input NAND Goc Quad Exclusive OR	6.18 .80 5.43 1.48 6.80	3.50 .59 3.05 1.07 3.90	2.90 .50 2.55 .91 3.20
551-9614 570-7253 551-9616 570-7254 551-9618	9015DC 9015DM 9016DC 9016DM 9017DC	Quad NOR Hex Inverter Hex Inverter Open Coll	1.08 6.18 1.30 6.80 1.30	.78 3.50 .94 3.85	.66 2.90 .80 3.20
570-7255	9017DM	thex Inverter Open Coll Oual JK Php Flop Dual FF	6.80	3.85	3.20
551-9620	9020DC		2.15	1.56	1.33
570-7256	9020DM		13.75	7.70	6.45
551-9622	9022DC		2.45	1.78	1.51
570-7257	9022DM		14.33	8.15	6.85
551-9624 570-7258 570-7259 570-7264 551-9298	9024DC 9024DM 9030DC 9035DM 9039DC	Dual JK FF 8-Bit Memory Celt Dual - JK FF	1.58 12.00 15.78 99.00 1.82	1.14 6.70 12.00 72.00 1.32	.97 5.65 10.50 60.00 1.10
551-9298	9093DC	Oual - JK FF /	1.97	1.44	1.20
570-7265	9093DM		7.05	5.65	4.75
551-9300	9093PC		1.43	1.05	.88
551-9302	9094DC		1.82	1.32	1.10
570-7266	9094DM		7.05	5.65	4.75
551-9304	9094PC	Dual JK FF	1,43	1.05	.88
551-9306	9097DC		1,82	1.32	1.10
570-7267	9097DM		7,05	5.65	4.75
570-7268	9097PC		1,67	1.35	1.13
551-9310	9099DC		1,97	1.44	1.29
570-7269	9099DM	His Level Hex Inverter His Level Hex Inverter	7.05	5.65	4.75
551-9312	9099PC		1.43	1.05	88
570-7270	9109		7.20	4.30	3.60
570-7270	9109DC		7.20	4.30	3.60
570-7271	9110DC		7.20	4.30	3.60
570-7272 570-7273 551-9286 551-9288 551-9290	9111DC 9112DC 9135DC 9135PC 9157DC	Parallel Gate Firp Flop H. Level Hex Inverter Hex Inverter Ouad Buffer	6.25 7.20 1.09 .97 1.09	3.30 4.30 .88 .78	2.75 3.60 .73 .65
551-9292	9157PC	Ouad Power Gate 4-Bit Univ Reg. 4-Bit Shift Register	.97	.78	.65
551-9294	9158DC		1.89	.88	.73
551-9296	9158PC		.97	.78	.65
551-8980	9300DC		3.38	2.85	2.45
575-7400	9300PC		2.40	2.02	1.65
551-9124	9301DC	1 0/ 10 Decoder	3.38	2.85	2.45
575-7401	9301PC	1-of-10 Decoder	2.12	1.80	1.44
570-7280	9302DC	1 0/ 10 Decoder 0 C	3.38	2.85	2.45
570-7402	9302PC	1-of-10 Decoder 0 C	2,40	2.02	1.65
551-9156	9304DC	Dual Full Adder	4.38	3.40	2.95
70-7404 551-9012 570-7405 551-9128 570-7407	9304PC 9305DC 9305PC 9307DC 9307PC	Dual Fu!! Ander Var Modulo Counter Varable Modulo Counter 6CD To 7 Seg Decoder 7-Seg Decoder 7-Seg Decoder	2.65 3.00 2.12 5.75 3.45	1.80 2.60 1.80 4.10 2.93	1.44 2.25 1.44 3.55 2.38
51-9042	9308DC	Eight Bit Latch Oual 4-Bit Latch Oual 4-Input MPXR Oual 4-Input MPXR OUal 4-Input MpXR	6.38	5.55	4.65
570-7281	9308PC		4.50	3.80	3.02
651-9066	9309DC		3.15	2.25	1.95
670-7409	9309PC		2.12	1.80	1.44
51-9016	9319DC		4.75	3.70	3.20
70-7410	9310PC	Decade Counts 1 Of 16 Digital Decoder 1 Of 16 Decoder 3 Input Multiplexer 8 Input Multiplexer 8 Input Multiplexer	3.77	3.20	2.55
351-9130	9311DC		4.95	4.20	3.40
70-7282	9311PC		4.45	4.20	3.55
351-9070	9312DC		3.15	2.25	1.95
10 74-2	9312PC		2.12	1.80	1.44
551-9074 675-7413 651-9046 670-7414 651-9134	9313DC 9313PC 9314DC 9314PC 9315DC	8 Input Mptrr Open Coll 8-Input Mptr OC Quast Latch 1-01-10 Decoder Driver	3.15 2.12 3.05 2.00 2.87	2.25 1.80 2.85 1.69 2.43	1.95 1.44 2.45 1.37 1.98
770-7287 751-9020 770-7416 670-7301 770-7417	9315PC 9316DC 9316PC 9317CDC	1-ol-10 Decoder Driver Up Briary Counter 4-bit Briary Counter 7-Sep Decoder Driver	2.21 4.75 3.77 6.25 3.45	1.87 3.70 3.20 4.40 2.93	1.52 3.20 2.50 3.85

Integrated Circuit Directory

SEE PAGE 8 FOR DISCRETE DEVICES

INTEGRATED CIRCUITS

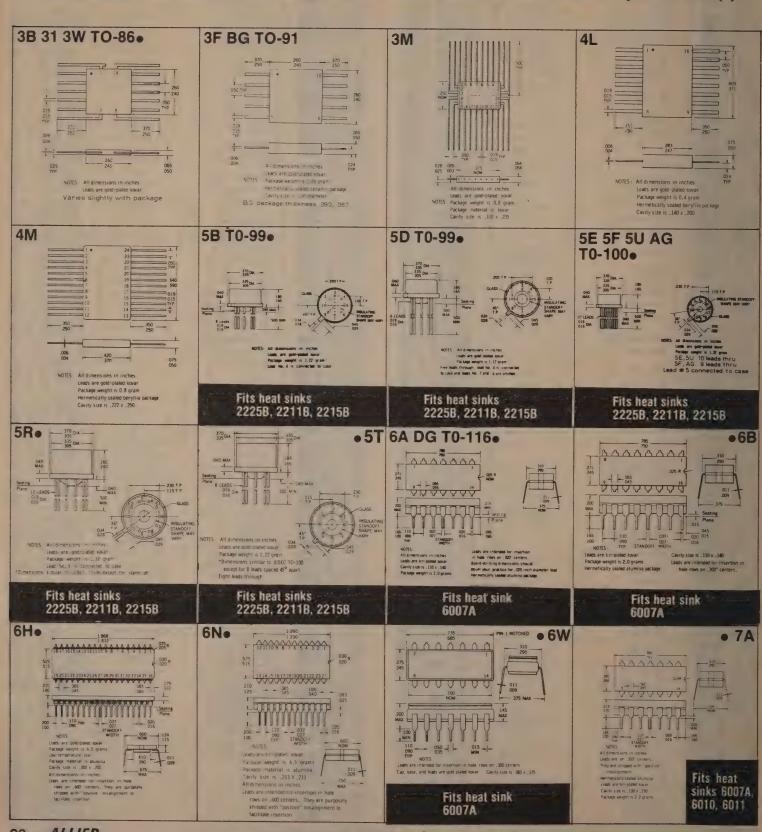
			EACH						EACH		
Stock Number	Турв	Circuit Function	1- A	25- 99	100- Up	Stoc Numb		Circuit Function	1-	25- 99	100- Up
551-9152 570-7418 551-9140 570-7421 551-9032	9318DC 9318PC 9321DC 9321PC 9322DC	8-Input Priority Encode 8-Input Priority Enc Dual 01 4 Decoder Dual 1-of-4 Decoder Quad 2-Input Mpxr	9.38 4.15 3.98 2.12 3.75	6.90 3.50 2.85 1.80 2.25	6.00 2.81 2.45 1.44 1.95	570-704: 570-704: 570-704 570-705: 570-705	54121DM 54145DM 54150DM	Dual J-K M-S FF One-Shot Multiwbrator BBD-DEC Decoder Drvr 16 Input Mplxr 8-bit Data Select	9.75 11.25 9.00 13.90 12.80	6.25 7.20 7.20 11.00 10.25	5.20 6.00 6.00 9.30 8.55
570-7422 551-9158 570-7424 551-8986 570-7428	9322PC 9324DC 9324PC 9328DC * 9328PC	Quad 2-Input MPLX 5-Bit Comparator 5-Bit Comparator Dual 8-Bit SnR Dual 8-Bit SnR q	2.12 6.50 3.45 8:00 4.40	1.80 5.70 2.93 6.90 3.73	1.44 4.95 2.38 6.00 3.03	570-705 570-705 570-705 570-705	54153DM 54164DM 54165DM	8 Input Mpkr Dual 4 Input Mpkr 8-Bit SE PA Converter 9-Bit PA SE Converter 8-Bit Parity Gen Chkr	19.85 18.00 15.15 15.15 30.00	15.90 14.40 12.10 12.10 24.00	13.25 12.00 10.10 10.10 20.00
551-9050 570-7434 570-7309 551-8990 570-7438	9334DC 9334PC 9335DC 9338DC 9338PC	8-Bit Addressable Latch 8-Bit Addressable Latch 8-Bit Data Select 8-Bit Mult Port Register 8-Bit Mult Port Reg	8.65 5.20 13.75 10.38 5.75	5.60 4.40 7.85 6.80 4.85	4.85 3.57 - 6.55 5.90 3.95	570-705 570-706 570-706 570-706 570-714	54182DM 54190DM 54191DM	4-Bit Arith Logic Unit Carry Lookahead Up Bown Dec Counter Up Down Binary Cit; Dual J-K M-S.FF	13.30 5.83 33.00 16.50 1.95	12.25 3.85 26.50 13.20	10.65 3.33 22.00 11.00 1.30
551-9162 570-7440 551-9100 570-7311 551-9102	9340DC 9340PC 9341DC 9341PC 9342DC	4 Bit Alu 4-Bit Arith Logic Unit 4-Bit Arith Logic Ut 4 Bit Arith Logic Unit Carry Look Ahead	12.63 8.60 12.63 8.80 3.60	8.95 7.40 8.95 7.45 2.56	7.77 6.05 7.77 5.99 2.22	570-714 570-715 570-715 570-715 570-715	74121DC 74121PC 74141DC	Qne-Shot Multivibrator BCD to Decimal Dec Dr	1.50 1.73 1.13 2.92 2.47	1.20 1.46 .90 2.57 1.97	.98 1.19 .70 2.01 1.53
570-7315 551-9080 570-7316 551-9106 551-9024	9344DC 9345DC 9345PC 9348DC 9350DC	4v2 Bit Multiplier BCD-Del Dodr/Drvr (30V) 12-Bit Par Gen/Checker Decade Counter	12.65 5.95 3.49 6.88 3.10	11.50 4.75 2.78 4.55 2.80	10.00 3.95 2.16 3.95 2.45	570-715 570-715 570-715 570-716 570-716	74145PC 74150DC 74151DC 74151PC	BCD to Dec Dodr Drvr 16-Bit Data Select 8-Bit Data Select	3.36 2.76 5.72 3.93 2.91	2.85 2.20 4.85 3.13 2.32	2.30 1.71 3.94 2.43 1.80
551-9084 551-9086 551-9088 551-9090 551-9092	9352DC 9352PC 9353DC 9353PC 9354DC	BCD-Dec Decoder/Driver Excess 3 To Dec Decoder Excess 3 GR To Dec/Dodr	2.60 1.98 3.95 3.26 3.95	2.18 1.58 3.33 2.60 3.33	1.78 1.22 2.70 2.01 2.70	570-716 570-716 570-716 570-716 570-716	74152PC 74153DC 74153PC 74164DC	8-Input Mplx Dual 4 Input Mplx 8-Bit SE PA Converter	13.75 8.50 3.46 2.91 5.50	7.85 6.30 2.92 2.32 4.65	6.55 5.25 2.83 1.80 3.80
570-7317 570-7318 551-9096 551-9054 570-7319	9354PC 9356DC 9357ADC 9357APC 9357BDC	Binary Counter BCD-To-7, Seg Decoder BCD-7 Seg Decoder Drvr	3.26 3.10 3.46 3.05 3.35	2.60 2.80 2.92 2.43 2.84	2.01 2.45 2.38 1.89 2.31	570-716 570-716 570-716 570-717 570-717	74165DC 74165PC 74166DC 74166PC	8-Bit PA SE Converter 8-Bit Shift Register	4.13 5.50 4.13 7.00 6.55	2.90 4.65 2.90 6.10 5.22	2.25 3.80 2.25 5.45 4.05
551-9058 551-9060 551-9062 551-9028 570-7320	9357BPC 9358DC 9358PC 9360DC 9360PC	BCD-7 Seg Decoder Up-Dn Decade Counter	2.85 4.69 2.62 6.82 3.93	2.27 3.93 2.09 5.85 3.13	1.76 3.20 1.62 4.85 2.43	570-717 570-717 570-717 570-717 570-717	74175PC 74180DC 74180PC 74181DC	Quad DF-F W Clear Parity Gen-Checker 4-Bit Anth Logic Ut	4.00 3.64 4.21 3.67 12.63	3.20 2.90 3.55 3.10 8.95	2.65 2.25 2.84 2.52 7.70
570-7321 551-9030 570-7322 551-9052 551-9010	9366DC 9366PC 9368DC 9375DC 9375PC	U.D Binary Counter; FND-70 Driver Latch Quad Latch Quad Latch	6.82 3.93 3.50 1.60 1.45	5.85 3.13 2.65 1.32 1.16	4.85 2.43 2.30 1.10 .90	570-717 570-717 570-717 570-718 570-718	74182DC 74190DC 74190PC 74191DC	4-Bit Arith Logic Unit Carry Look Ahead Up Down Decade Counter Up Down Binary Ctr	8.80 3.60 7.60 5.82 7.60	7.45 2.56 6.05 4.64 6.05	5.99 2.22 5.05 3.60 5.05
551-9112 551-9114 551-9116 551-9118 570-7323	9380DC 9380PC 9382DC 9382PC 9383DC	Gated Full Adder 2-Bit Binary Full Adder 4-Bit Binary Full Adder	1.65 1.45 2.92 2.25 4.63	1.40 1.16 2.57 1.76 2.85	1.15 .90 2.01 1.37 2.30	570-718 570-718 570-718 570-718 570-718	74192DC 74192PC 74193DC	Up Down Decade Counter Up Down Binary Counter	5.82 6.82 3.93 6.82 3.93	4.64 5.85 3.13 5.85 3.13	3.60 4.85 2.43 4.85 2.43
551-9122 570-7324 570-7325 551-9164 570-7326	9383PC 9386DC 9386PC 9390DC 9390PC	Quad Exclusive NOR Decade Counter	2.76 3.00 2.63 1.81 1.60	2.20 2.20 1.86 1.53 1.27	1.71 1.85 1.62 1.24	570-728 570-728 570-728 570-728 570-728	93141PC 93145DC 93145PC 93150DC	BDC To Dec Dr BCD-DEC Decoder Driver 16-Bit Data Select	2.92 2.47 3.36 2.76 5.72	2.57 1.97 2.85 2.20 4.85	2.01 1.53 2.30 1.71 3.94
551-8992 551-8994 551-9168 551-9170 551-9172	9391DC 9391PC 9392DC 9392PC 9393DC	8-Bit Shift Reg Divide By 12 Ctr 4-Bit Binary Ctr	2.92 2.47 1.79 1.60 1.79	2.57 1.97 1.52 1.27 1.52	2.01 1.53 1.23 .99 1.23	570-728 570-729 570-729 570-729 570-729	93151PC 93152DC 93152PC 93153DC	8-Bri Data Select 8-Input Mplxr Dual 4-Input Mplx	3.93 2.91 13.75 8.50 3.46	7.85 6.30 2.92	2.43 1.80 6.55 5.25 2.83
551-9174 551-8996 570-7327 551-9142 570-7328	9393PC 9394DC 9394PC 9395DC 9395PC	4-Bit Shift Reg 4-Bit R.L Shift Reg	1.60 2.92 2.18 2.48 2.18	1.27 2.57 1.74 2.10 1.74	.99 2.01 1.35 1.70 1.35	570-729 570-729 570-729 570-729 570-729	5. 93164DC 6 93164PC 7 93165DC 8 93165PC	8-Bit PA-SE Converter	2.91 5.50 4.13 5.50 4.13	2.32 4.65 2.90 4.65 2.90	1.80 3.80 2.25 3.80 2.25
551-9146 551-9148 570-7347 570-7349 570-7350	9396DC 9396PC 9502DC 9503DC 9504DC	5-Bit Shift Reg Dual 4 Input OR-NOR Gate Triple 2 FOR NOR Gate Ouad 2 Input NOR Gate	2.81 2.33 2.70 2.70 2.70	2.37 1.85 1.85 1.85 1.85	1.93 1.44 1.70 1.70 1.70	570-729 570-730 570-730 570-730 551-910	93166PC 93175DC 93175PC 93180DC	8-Bu Shift Register Quad D F-FW Clear Parity Gen Checker	7.00 6.55 4.00 3.64 4.21	6.10 5.22 3.20 2.90 3.55	5.49 4.05 2.65 2.25 2.84
570-7351 570-7352 570-7361 570-7362 570-7363	9505DC 9507DC 9528DC 9534DC 9538DC	4 Wide OR/AND Gate Quad AND/NAND Dual D Type FF Quad Latch 1 Of 8 Decoder	4.25 4.25 6.25 7.75 8.88	2.85 2.85 4.25 5.35 6.10	2.50 2.50 4.00 5.00 5.70	570-730 570-730 570-730 570-730 570-730	5 93190DC 6 93190PC 7 93191DC 8 93191PC	Up Down Dec Counter 1 Up Down Binary Ctr	7.60 5.82 7.60 5.82 31.35	6.05 4.64 6.05 4.64	5.05 3.60 5.05 3.60
570-7368 570-7369 570-7370 570-7371 570-7372	9578DC 9579DC 9580DC 9581DC 9582DC	Quad Ex-0R/4 Bit Comp Quad 2 Input Multiplexs Triple 2 Input Mplxr 1 to 8 Multiplexer ECL/INT Triple Line RCVR AMP	4.75 8.13 8.13 8.13 4.25	3.50 5.55 5.55 5.55 2.85	3.05 5.20 5.20 5.20 2.50	551-920 551-921 551-920 551-919 570-73	0 934010C 93403DC 93407ADC 93407BDC	256 Bit RAM 93400 Decoder Driver 64 Bit RAM 16 Bit RAM 16 Bit RAM	8.14 14.90 12.75 10.13	5.60 8.40 7.20 5.75	4.55 7.00 6.00 4.80
570-7373 551-9176 551-9178 551-9180 551-9182	9595DC 9600DC 9601DC 9601PC 9602DC	Level Converter Retrig 1 Shot Retriggerable 1 Shot Dual Retrig 1 Shot	4.25 4.50 4.40 1.65 8.88	2.85 4.05 4.05 1.50 6.60	2.50 3.50 3.50 1.30 5.75	570-731 570-731 551-918 570-731 551-918	3 93415DC 4 93433ADC 93433BDC 93435DC	255 Bit Isopianar RAM 1024-Bit Isopianar RAM 16 Bit RAM 16 Bit RAM 64 Bit RAM	80.16 11.20 10.13 43.50	15.70 67.00 9.00 5.75 35.00	56.00 7.50 4.80 29.00
570-7374 551-9186 551-9188 570-7375 570-7376	9602PC 9603DC 9603PC 9614DC 9615DC	One-Shot Multiwbrater One-Shot Multiwbrator Dual Line Driver Dual Line Receiver	3.13 1.73 1.13 6.00 6.00	2.40 1.46 .90 3.60 3.60	.70	570-734 570-734 570-734 570-734 570-735	5 95003DC 95004DC 8 95029DC 95101DC	Dual 4 OR NOR Gate Triple 2 OR NOR Gate Quad 2 NOR Gate JK Master Slave EF Quad OR NOR Gate CE	2.68 2.68 2.68 9.75 2.68	1.84 1.84 4.95 1.84	1.67 1.67 4.50 1.67
570-7377 570-7378 570-7379 570-7380 570-7381	9616DC 9617DC 9620DC 9621DC 9622DC	EIA Line Driver EIA Line Driver Dual Line Recever Dual Line Driver Dual Line Driver Dual Line Recever	8.50 6.50 8.88 7.25 9.38	5.18 4.05 4.70 3.80 4.95	3.95	570-738 570-738 570-738 570-738 570-738	5 95106DC 6 95109DC 7 95110DC 8 95111DC	Quad OR NOR Gate Cb Quad 2 NOR Gate Triple 4-3-3 OR Gate Dual 4-5 OR NOR Gate Dual 3 in 3 Out OR Gate Dual 3 in 3 Out NOR Gate	2.68 2.68 2.68 2.88 2.88	1.84 1.84 1.84 2.30 2.30	1.67 1.67 1.67 2.09 2.09
570-7382 570-7383 551-7900 551-7902 551-7904	9624DC 9625DC 10101DC 10102DC 10106DC	Dual TTUL MOS Inter Fle Dual MOS TTUL Inter Fle Quad Of MNOR GateCF Quad 2 NOR Gate Interple 4-3 NOR Gate	6.25 4.95 2.68 2.68 2.68	3.25 2.65 1.84 1.84 1.84	1.67	570-738 570-738 570-738 570-738 570-738	4 95400DC 95401DC 6 95410DC 7 95415DC	Quad Line Receiver 4x16 Bit RAM 16 Bit Scratch Pad Mem 256 Bit Isoplanar RAM 1024 Bit Isoplanar RAM	27.82 13.90 31.50 146.00	25.55 11.00 25.20 100.00	20.00 8.70 21.00
551-7906 551-7908 551-7910 551-7912 569-3401	10109DC 10110DC 10111DC 10115DC 34001PC	Dual 4-5 OR/NOR Gate Dual 3 In/Out OR Gate Dual 3 In/Out NOR Gate Quad Line Receiver Quad 2-in-put Nor Gate	2.68 3.35 3.35 2.68 1.45	1.84 2.30 2.30 1.84	2.09 2.09 1.67	569-320 569-350 569-35 569-35	8 3261-2DC 9 3532-1DC 0 3532-2DC 1 3534-2DC	Color TV Sync Generator B & W Sync Generator 512x1 Static RAM 1024x1 Dyn RAM	35.90 23.10 13.20	16.00 10.00	19.50 14.00 8.00
569-3402 569-3411 569-3412 569-3423 569-3425	34002PC 34011PC 34012PC 34023PC 34025PC	Dual 4-Input Nor Gate Quad 2-Input Nand Gate Dual 4-Input Nand Gate Triple 3-Input Nand Gate Triple 3-Input Nor Gate	1.45 1.45 1.45 1.45 1.45	.94 .94 .94 .94	.78 .78 .78 .78 .78	569-370 569-370 569-370 569-370 569-370	3700-2DL 3700-2DM 3700-2FC 43700-2FL	4 Chan Mptx Switch	12.53 25.05 37.58 15.03 16.53	20.00 30.00 12.00 14.00	8 35 16.70 25.00 10.00 11.00
569-3427 569-3428 569-3430 569-3431	34027PC 34028PC 34030PC 34811PC	Dual 5 K Fig-Flop 1-01-10 Decoder Quad Exclusive - Or Gate Quad Exclusive - Nor Gate	1.45 6.88 3.05 3.52	.94 4.40 1.96 2.55	.78 3.67 1.62 2.10	569-370 569-370 569-370 569-370	6 3700-3DC 3700-3DL 8 3780-3DM		18.79 37.58 56.36 14.88	15.00 30.00 45.00 9.32	12.00 12.50 25.00 37.50 6.60

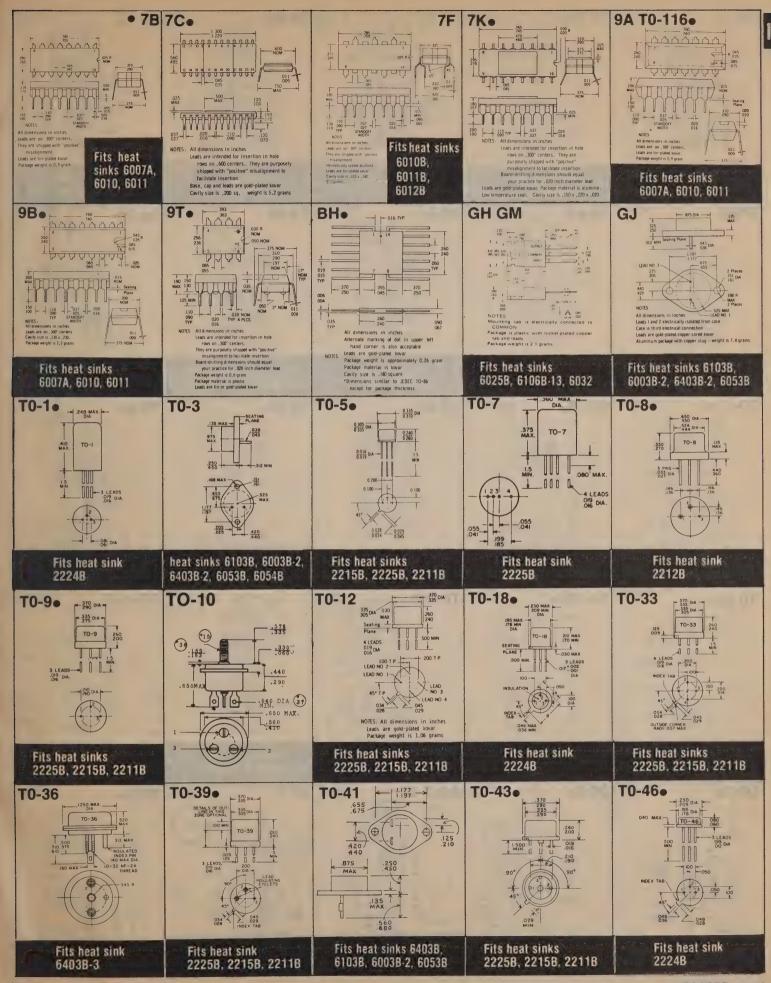
Solid-State Devices Case Drawings

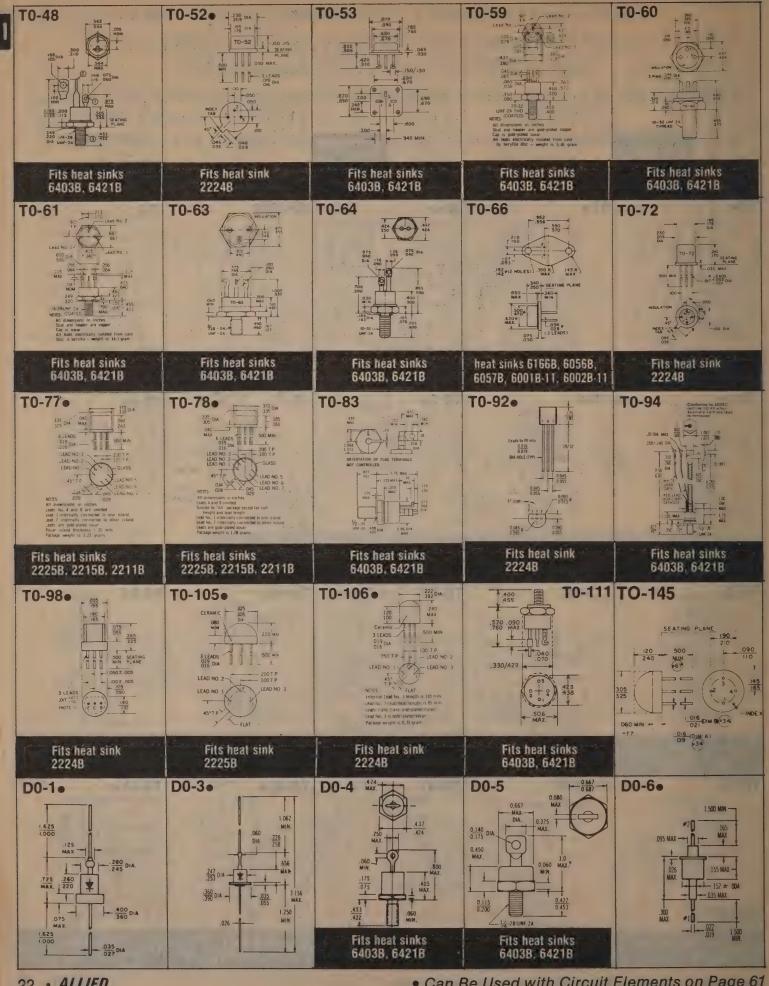
DRAWINGS AND SPECIFICATIONS OF INTEGRATED CIRCUIT, TRANSISTOR, RECTIFIER AND DIODE CASES

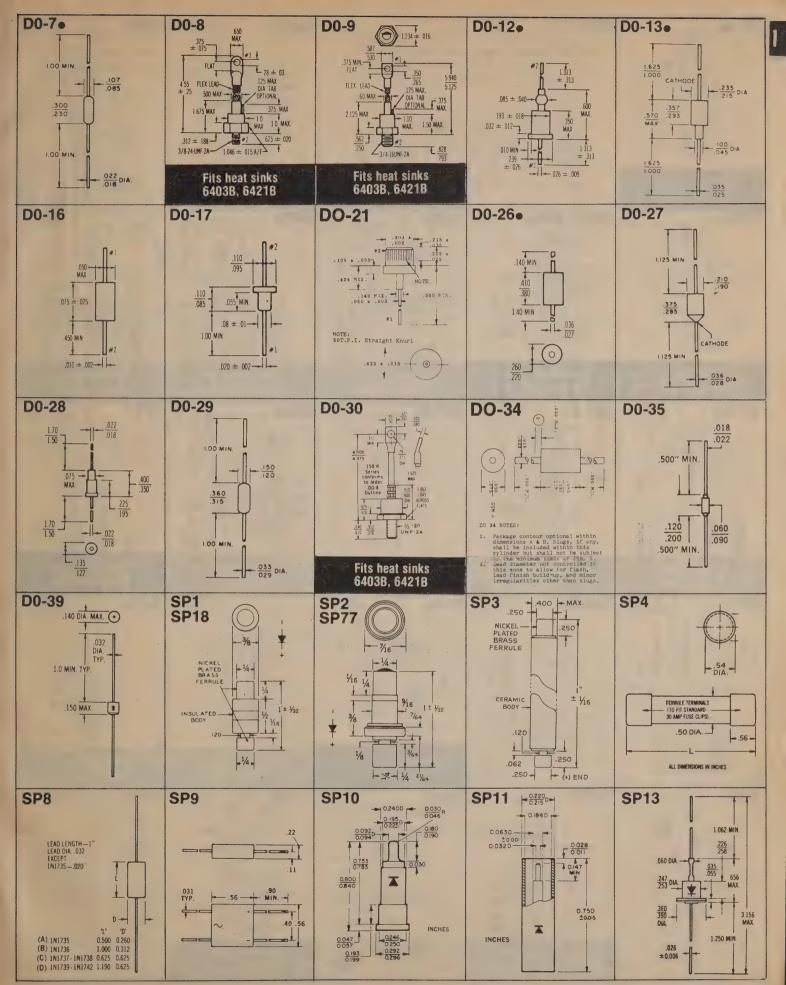
Complete with References to Heat Sinks that Match the Various Case Styles—See Pages 49-51 for Heat Sink Diagrams and Prices

Case Styles that Can Be Used with Printed Circuit Elements are Denoted by Bold Dot (•)

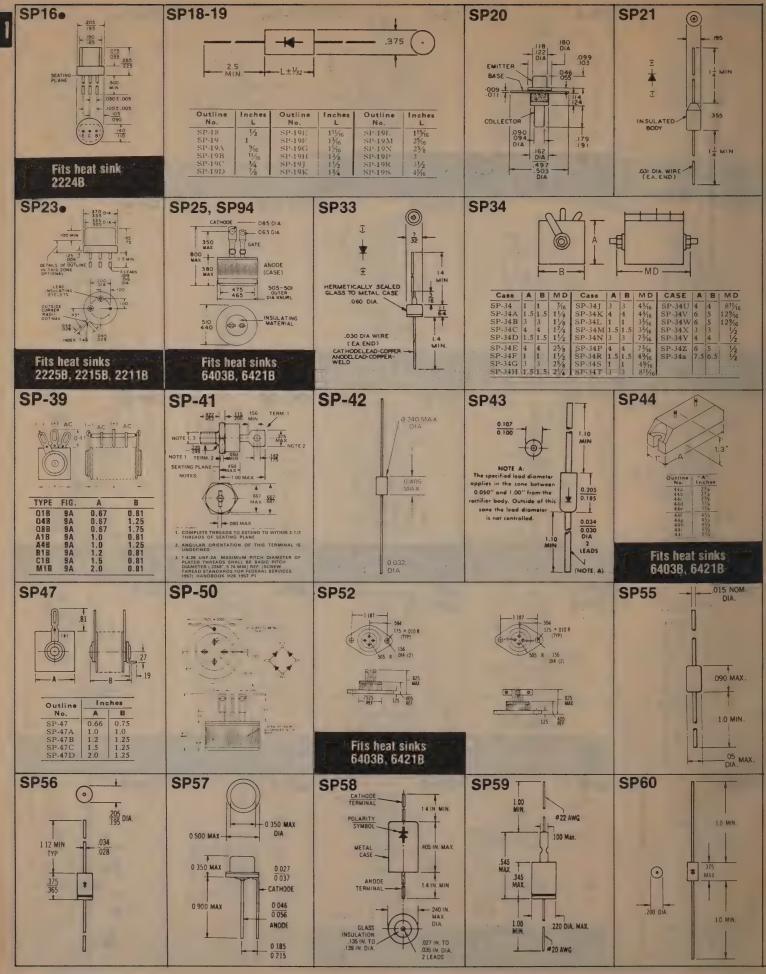


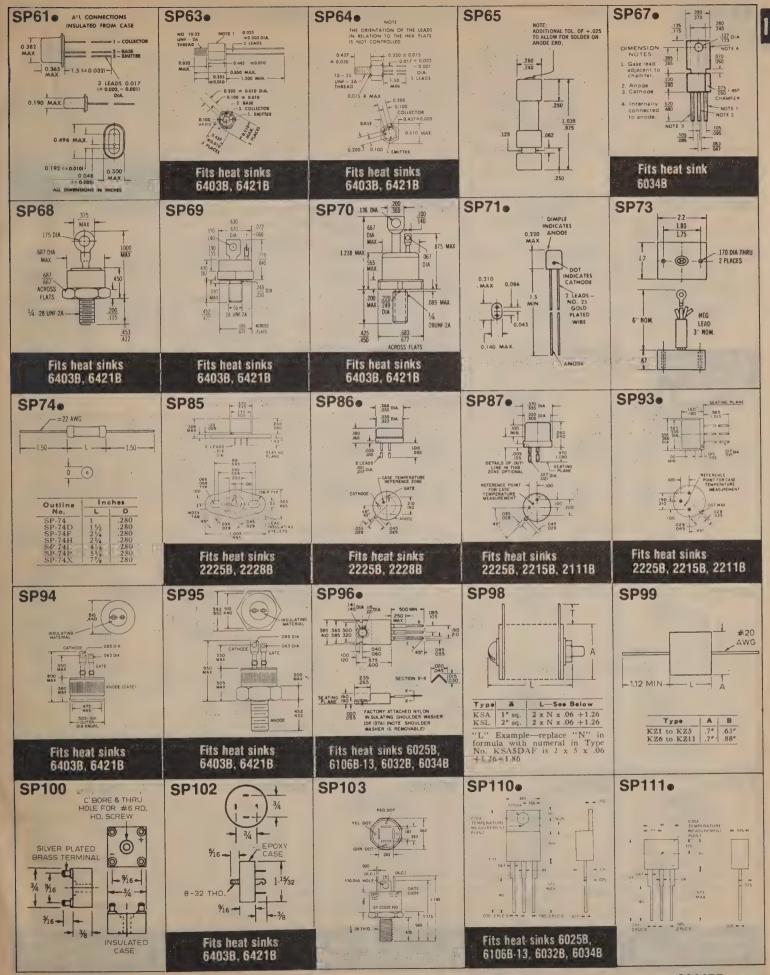


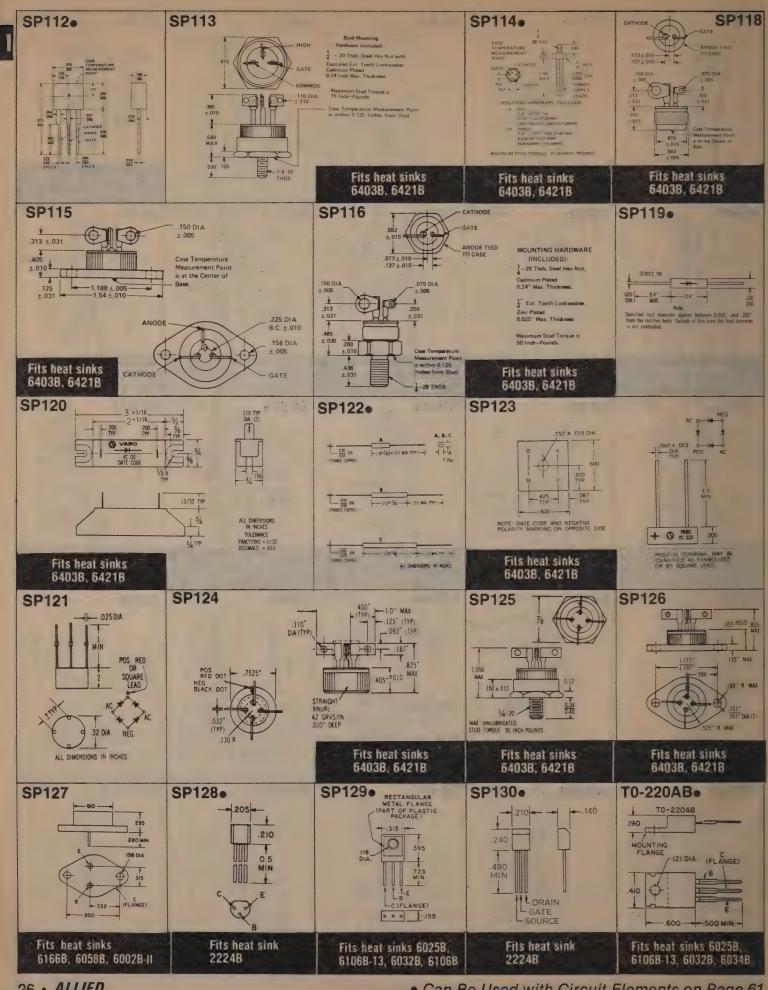




See Pages 49-51 for Heat Sink Listings and Prices







Optoelectronic Components



SENSOR AND EMITTER ASSEMBLIES REFLECTIVE ASSEMBLIES

Utilize high efficiency solution grown GaAs LED's and planar process silicon phototransistors or photodarlingtons. SPX-1160, 1180 and 1404 use hermetically sealed devices mounted in molded plastic

housings and prefocused for optimum signal at stated distance. -40°C to $+100^{\circ}\text{C}$, SPX-1396 has LED and phototransistor chips mounted on same header. Rated for operation up to 70°C .

Stock	Mfr's	LED V _F	VBR (CEO)	VBR (ECO)	IL (mA)	D†		TR (µSec)		EA	CH
No.	Туре	Max.	Min.	Min.	Min@ LF (mA)	.75	Max@ H=0	Тур	Тур	1-9	10-Up
609-1175 609-1180	SPX1160-3* SPX1180-2	1.6V@50mA 1.6V@50mA 1.6V@50mA 1.6V@50mA	15V@100μA 50V@100μA	7V@100μA 7V@100μA	5@ 30 .125@ 30	.5 .5	25 1000 25 1000	5@1kΩ 25@100Ω 5@1kΩ 25@100Ω	10@1kΩ 50@100Ω 10@1kΩ 50@100Ω	11.00	8.80 8.80 8.80 8.80
609-1195 609-1200	SPX1396-2 SPX1396-3 SPX1404-2 SPX1404-3*	1.5V@25mA 1.5V@25mA 1.6V@50mA 1.6V@50mA	50V@100μA 50V@100μA	7V@100μA 7V@100μA	2@25	.2	150 250 25 1000	35@1kΩ 35@1lΩ 5@1kΩ 25@1kΩ	35@1kΩ 35@1kΩ 10@1kΩ 50@100Ω	6.63 7.50 11.00 11.00	5.30 6.00 8.80 8.80

^(*) Photodarlington sensor. (†) Optimum distance to reflective surface. All parameters @ 25°C.

OPTICAL SWITCH ASSEMBLIES

Construction similar to reflective assemblies above. Widely used as sector sensors, optical encoders,

tachometers, or any application where fast non-contact switching is needed.

Stock	Mfr's	LED V _F	VBR (CEO)	V _{BR} (ECO)	I _L (mA)	ID (nA)		TR (uSec)	E/	ACH
No.	Туре	Max	Min.	Min.	Min@Lf (mA)	Max@ Lf=0	Тур	Тур	1-9	10-Up
609-1210	SPX1468-2	1.6V@50mA	50V@100μA	7V@100µA	1.5@30	25	8@1kΩ	16@1kΩ		8.80
609-1215	SPX1468-3*	1.6V@50mA	15V@100µA	7V@100µA	5 @30	1000	75@100Ω	$150@100\Omega$		8.80
609-1220	SPX1636-2	1.6V@50mA	50V@100µA	7V@100µA	1.5@30	25	8@1kΩ	16@1kΩ		8.80
609-1225	SPX1636-3*	1.6V@50mA	15V@100µA	7V@100µA	5 @30	1000	75@100Ω	150@100Ω		8.80
609-1230	SPX1637-2	1.6V@50mA	50V@100µA	7V@100µA	1.5@30	25	8@1kΩ	16@1kΩ	11.00	8 80
609-1235	SPX1637-3*	1.6V@50mA	15V@100µA	7V@100µA	5 @30	1000	75@100Ω	150@ 100Ω	11.00	8 80
609-1240	SPX1872-2	1.6V@60mA	50V@100μA	7V@100µA	1.5@30	25	8@1kΩ	16@1kΩ	6.25	5.00
609-1245	SPX1872-3*	1.6V@50mA	15V@100µA	7V@100µA	5 @ 30	1000	75@100Ω	150@100Ω	6.25	5.00
609-1250	SPX1873-2	1.6V@50mA	50V@.100µA	7V@ 100μA	1.5@ 30	25	8@1kΩ	16@1kΩ	6.25	5.00
609-1255	SPX1873-3*	1.6V@50mA	15V@100μA	7V@100μA	5 @30	1000	75@100Ω	150@100Ω	6.25	5.00

^(*) Photodarlington sensor, All parameters @ 25° C.

OPTOCOUPLERS

Optically coupled isolators are widely used to replace the functions of relays and transformers. SC2001-2: GaAs LED optically coupled to a silicon planar NPN phototransistor. SC2002-2: GaAs LED

optically coupled to a silicon planar photodariington. Both devices are contained on 6 pin dual inline plastic packages. Useful in digital interface to eliminate ground loops, noise spikes, etc.

		Detector			Emitt	er	Coupled		EACH	
Stock No.	Mfr's Type	BV _{CEO} Watts	BV _{ECO} Watts	I _{CEO} (nA)	V _F @ 50mA (Volts)	IR@ 3V (μ A)	DC transfer Ratio (%)	T _R (μSec)	1-9	10-Up
609-1000 609-1005	SC2001-2 SC2002-2	50 30	7. 7	50 250	1.5 1.5	10 10	30-100 >100	4 50	3.95 4.38	3.16 3.50

LIGHT EMITTERS

Utilize high efficiency solution grown epitaxial GaAs. Peak emission wave length of 930 nm. Packaged in Kovar/Glass/Ceramic. Hermetically sealed. Spectrally and mechanically matched to companion sensors. Power Range: 350 microwatts to 4.8 milliwatts. Fast response diodes, shock and vibration resistant. Temperature Range: -65 C to +100°C. See chart below for additional specifications.

Stock	Mfr's	Power, mW			VF Beam Angle		LA	UH
No.	Туре	Min.	Тур	IF (mA)	Max@IF	Тур*	1-9	10-Up
609-1105	SE1450-2	.35	.5	50	1.5(2,50	12°	6.00	4.80
609-1110	SE1450-2L	.35	.5	50	1.5@50	12°	6.10	4.88
609-1115	SE1450-3	.70	.85	50	1.5@50	12°	7.20	5.76
609-1120	SE1450-3L	.70	.85	50	1.5@50	12°	7.30	5.84
609-1125	SE2460-2	.4	.7	50	1.5@50	18°	6.00	4.80
609-1130	SE2460-3	1.0	1.2	50	1.5@50	18°	7.20	5.76
609-1135	SE2460-4	1.5	1.7	50	1.5@50	18°	8.40	6.72
609-1140	SE3455-1	2.0	2.7	100	2.0@100	90°	5.00	4.00
609-1145	SE3455-2	3.5	4.2	100	1.7@100	90°	6.00	4.80
609-1150	SE3455-3	4.8	6.0	100	1.7@100	90°	6.50	5.20
609-1155	SE5455-1	2.0	2.7	100	2.0@100	20°	5.00	4.00
609-1160	SE5455-2	3.5	4.2	100	1.7@100	20°	6.00	4.80
609-1165	SE5455-3	4.8	6.0	100	1.7@100	20°	6.50	5.20

^(*) Angle between half intensity points.

LIGHT SENSORS

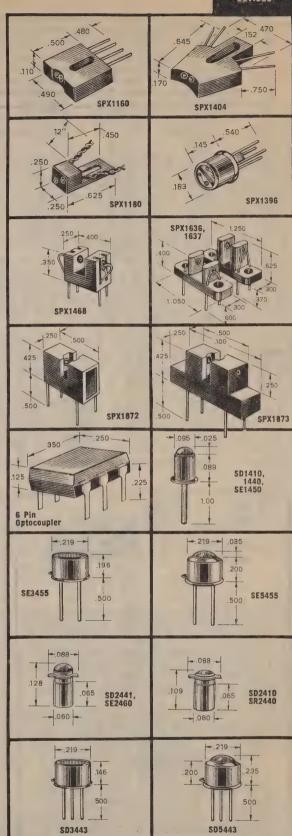
Phototransistors and photodarlingtons employing diffused junctions, passivated planar process silicon for stability and protection. Hermetically sealed

in Kovar/Glass/Ceramic packages. Photodarlingtons have lower irradiance levels and lower frequency response than phototransistors.

Stock	Mfr's	Light Curr.		I D(nA)	VBR(CEO)	VCE(SAT)	Angular	EA	CH
No.	Type		mA)	H=0	IC=100µA	Typ@.4mA		1-9	10-Up
		Min	@ H*				Тур#	-	
609-1030	SD1440-2	1.5	5	25	• 50	.3	12°	4.00	3.20
609-1035	SD1440-2L	1.5	5	25	50	.3	12°	4.10	3.28
609-1040	SD1440-3	3.0	5	25	50	.3	12°	4.75	3.80
609-1045	SD1440-3L	3.0	5	25	50	.3	12°	4.85	3.88
609-1060	SD2440-2	2	20	25	50	.3	24°	4.00	3.20
609-1065	SD2440-3	4	20	25	50	.3	24°	4.75	3.80
609-1070	SD2441-2	4	20	100	50	.3	18°	4.00	3.20
609-1075	SD2441-3	8	20	100	50	.3	18°	4.75	3.80
609-1080	SD3443-2	1	5	100	30	.2	45°	3.30	2.64
609-1085	SD3443-3	2	5	100	30	.2	45°	4.00	3.20
609-1090	SD5443-2	4	5	100	30	.2	9°	3.30	2.64
609-1095	SD5443-3	8	5	100	30	.2	90	4.00	3.20
609-1100	SD5443-4	16	5	100	30	.2	9°	5.00	4.00

Stock	Mfr's	Ligh	Light Curr.		VBR(CEO)	VCE(SAT)	Angular	EACH	
No.	Туре		(mA) (@ H*	H=0		Max@.1mA		1-9	10-Up
609-1010	SD1410-2	2	0.2	250	15	1.1	12°	4.00	3.20
609-1015	SD1410-2L	2	0.2	250	15	1.1	12°	4.10	3.28
609-1020	SD1410-3	4	0.2	250	15	i.i	12°	4.75	3.80
609-1025	SD1410-3L	4	0.2	250	15	1.1	12°	4.85	3,88
609-1050	SD2410-2	3	1.0	250	15	1.1	24°	4.00	3,20
609-1055	SD2410-3	6	1.0	250	15	1.1	24°	4.75	3.80

(*) "H" = irradiance in mW/cm²; @ 2870° Tungsten. (#) Angle between incidence for peak response and incidence for 50% of peak response.



WRITE, WIRE OR PHONE
ALLIED ELECTRONICS
FOR LARGER QUANTITY
PRICES

Opto Electronics

This broad optoelectronics line offers new problem-solving capabilities. Choose from **sensors**—with 15 standard phototransistor types to provide matched and standard sensitivity ranges; LED lamps-22 types with clear, white and red lenses, large light emitting areas and pin-point sources; displays— 1/8" and 1/4" LED displays plus standard calculator displays, with or without drivers; optically-coupled isolators—including large volume, moderately priced isolators, high voltage units for special applications and inexpensive units for minimum requirements; arrays—which serve specific information-reading needs and also provide broad capabilities for applications requiring edge-, angle- and positioning-sensing as well as specific information reading units.

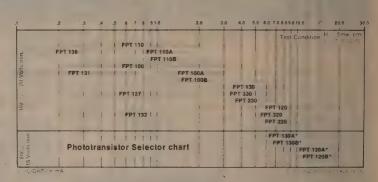
PHOTOTRANSISTORS AND PHOTODIODES

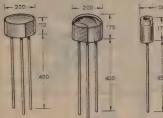
Phototransistor operation is a result of the photo-effect in solids, or more specifically, in semiconductors. Lights of a proper wavelength will generate hole-electron pairs within the transistor, and applied voltage will cause these carriers to move, thus causing current to flow. Intensity of applied light will determine the number of carrier pairs generated, and thus the magnitude of the resultant current flow. A phototransistor may be considered as a diffused junction, photosensitive diode in parallel with the collector-base junction of a silicon NPN transistor. As base current increases, collector voltage may decrease. When Vore becomes equal to Vare the photocurrent source becomes a photovoltaic source and allows the phototransistor to saturate. A phototransistor may be used as a photodiode by using the collector and base leads and leaving emitter open. Although this reduces sensitivity and efficiency, it does increase speed. Photodiode operation is generally required for switching or digital operation; phototransistor operation is used for analog circuits.

Phototransistor operation is used for analog circuits.

Phototransistor operation is used for analog circuits.

Phototransistors offer the following advantages: low leakage, low power requirements. TTL/DTL compatibility, low cost, high reliability, small size, easy interfacing with integrated circuits, minimal response time. Applications for phototransistors include: contactless switch, object counting, mechanical positioning of moving objects, optically coupled isolators, smoke or flame detector, flow or velocity measurement, light level measurement, intrusion alarm systems, photographic exposure controls, end-of-tape and beginning-of-tape sensors, data reading, shaft encoder, tachometer, contactless ignition systems, color recognition systems.





FPT 120



				EACH	
Stock	Mfr's	Description	1-	25-	100-
No.	Type		24	99	Up
555-9947	FPT 110A	Flat Lens Sensor	1.47	1.05	.77
555-9948	FPT 110A	Flat Lens Sensor, 1:3 sen.	1.80	1.27	.94
555-9949	FPT 110B	Flat Lens Sensor, 1:2 sen.	2.12	1.50	1.10
555-9950	FPT 120	Sensor, hi-sensitivity	1.80	1.27	.94
555-9952 555-9953	FPT 120A FPT 120B FPT 130	Sensor, 1:3 sensitivity Sensor, 1:2 sensitivity Sensor, hi-sensitivity	2.12 2.67 2.02	1.50 1.90 1.42	1.10 1.40 1.04
555-9954	FPT 130A	Sensor, 1:3 sensitivity	2.42	1.72	1.27
555-9955	FPT 130B	Sensor, 1:2 sensitivity	2.97	2.10	1.54
555-9956	FPT 131	Sensor	.95	.66	.49
555-9957	FPT 132	Sensor	1.45	1.02	.75

				EACH	
Stock	Mfr's	Description	1-	25-	100-
No.	Type		24	99	Up
555-9958	FPT 136	Sensor	1.17	.84	.62
555-9959	FPT 137	Sensor	1.62	1.13	.83
555-9960	FPT 220	Sensor, 1:2 sensitivity	2.67	1.90	1.40
555-9961	FPT 230	Sensor	2.97	2.10	1.54
555-9963 555-9909	FPT 320 FPT 330 FPT 100	Sensor, 1:3 snesitivity Sensor Sensor	2.12 2.42 1.17	1.50 1.72 .82	1.10 1.27 .61
555-9945	FPT 100A	Sensor, 1:3 sensitivity	1.37	.97	.71
555-9965	FPT 100B	Sensor, 1:2 sensitivity	1.70	1.20	.88
555-9910	FPT 101	Phototransistor	9.62	6.00	4.50
555-9946	FPT 102	Photodiode	9.62	6.00	4.50

OPTICALLY COUPLED **ISOLATORS**

FPT 130



An optically coupled isolator (OCI) consists of a gallium arsenide infrared light-emitting diode optically coupled to a silicon photo detector such as a photodiode or phototransistor. Switches on and off with speed in low microsecond range and faster; isolates input and output with 10¹¹ ohms resistance and coupling capacitance of approx. 1 pF; serves as the drive element to control equipment; operates with efficiency up to 50% and more, producing linear output; provides unidirectional operation, with no feedback to the input; interfaces such circuit devices as transistors and integrated circuits; interfaces memory -CPU-I/O logic.

-CPU-I/O logic.

Widely used to replace the functions of relays and transformers. In comparison with relays, the OCI offers: faster operating speed, positive (no bounce) action; insensitivity to vibration and shock; long life (no moving contacts); wide operating temperature range; small size; compatibility with DTL and TTL. Advantages over transformers include: frequency from DC to hundreds of kHz, lower coupling capacitance for better commonder ejection, small size, greater shock and vibration resistance. Typical applications include: digital interface between peripherals to eliminate problems such as ground loops, noise spikes and impedance problems; line couplers; HV power supply controls; biasing/modulation for crystal oscillators; stable low current programmable sources; high impedance/low frequency mixing; TTL to MOS interface; DC overcurrent controller; phase spititer; sideband coupler; motor control; square wave generators; CRT interfaces; in medical field to isolate patient from electrical monitoring equipment.

				EACH	
Stock No.	Mfr's Type	Description	1- 24	25- 99	100- Up
555-9912 555-9914	FCD 810 FCD 811	Isolator, 750 V	2.13	1.50	1.10





LIGHT **EMITTING** DIODE DISPLAYS

Light emitting diode (LED) displays are gaining wide acceptance in many areas. Their small size, single plane readout, TTL compatibility and low power requirements make them attractive for portable display instruments. LED's are appearing in digital voltmeters, watches, thermometers, light meters, radiation meters and all types of test equipment. Manufacturers of low-cost desk calculators, which are so popular today, favor LED readouts for the same reasons, in addition, they are easy to use with MOS calculator integrated circuits.

calculator integrated circuits.
Seven-segment LED displays use either common anode or common cathode techniques. With the common cathode method, the decoder/ driver must be able to source current into the display. The common anode variety requires the decoder/driver to sink current. Electrically, the LED is similar to the familiar solid state diode with its inherent characteristics. Uniform brightness of each segment and digit requires a constant current source rather than constant voltage. Light output increases linearity with current in the normal operating range. Current must be limited to avoid device failure.

Two general techniques are used to drive sevensegment displays in which the decoding function is performed externally to the display. In
direct drive or DC mode, usually used when
there are four or less digits, as display is
operated with each character continuously
illuminated. A separate decoder/dirver is required for each character in the display.
Multiplexing, the second technique, is the logical method to use the number of components
in the system. In multiplexing operation, the
one decoder/driver is time-shared among the
digits in the display, which are illuminated one
at a time at a rate high enough to eliminate
flicker. Because the human eye detects the
average light output, a low duty cycle with high
peak current pulses into the display and will
provide the same appearance as a continuous
current input at lower current. Electrical and
light rise times are in the nanosecond region.
LED displays can be operated at low duty cycle
with high scanning rates when multiplexed
(scanning rates above 100 MHz are usually
recommended).

			EACH							
Stock	Mfr's	Description	1-	25-	100-					
No.	Type		24	99	Up					
555-9250	FNA35	9-Digit Array 9-Digit Array 4-in. Digit—Common Anode 12-in. Digit—Common Cathode 12-in. MpX/DC-Digit	17.60	16.00	10.50					
555-9252	FNA37		19.25	17.50	12.00					
555-9253	FNA38		19.25	17.50	12.00					
555-9275	FND500		4.38	3.95	2.95					
555-9282	FND507		4.38	3.95	2.95					
555-9918	FND70		3.85	3.50	2.85					
555-9930	FNS700	10-Pin Dip Socket	1.00	.71	.5					

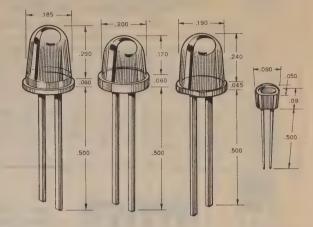
Opto Electronics

LIGHT EMITTING DIODE DISPLAYS

GaAsP (gallium arsenide phosphide) LED's are in common use, with new designs being made using GaP (gallium phosphide). GaP requires lower current than GaAsP to provide the same brightness. GaAsP LED's are lower cost. GaP gives low current red

lamps, plus yellow and green lamps. LED applications: dashboards, ignition, annunciators, appliances, cameras, computers, contactless potentiometers, digital voltmeters, foul line indicators, go/no-go gauges, IR amplifiers.

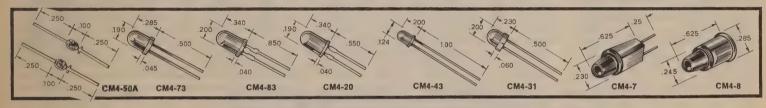
Lamp Si	ize	-	T - 3/4	T	-1	T-1	3/4	T-	13/4	T-1	3/4	T-1	3/4	T-1	3/4	T-1	3/4	T-1	3/4		
Package	es	Point :	Sources	Viewing	de g Angle	Wid Viewing		4° /	Angle	Cartr Lar		Sh Pro			dium ofile	Ta Pro		.025 x Lea			
Lens Diameter		E																{}	दे दे दे		
Lens Dia	ameter	.050	x .100	.12	20	.20	.200		.200		200	.20	00	.20	00	.2	00	.20	00	21	00
Constru	ction	0	up ,	Cı	пb	Cu	ip ,	Lead	Frame			Lead Frame		Lead	Frame	Lead F	rame	Lead	Fram		
Lens He	right	.0	90 .	.13	30	.21	5 .,	.3	350,	.23	15	.23	30.	.2	85	.34	10	3-	40		
Color	Mat'l.	Diff.	Clr.	Diff.	Clr.	Diff.	Clr.	Diff.	Clr.	Diff.	Cir	Diff	Clr	Diff	Clr	Diff	Clr	Diff	Cir		
Red	GasP		107	199	198	102 108 101 115 116	100 ` 114		104	130	131	103 140		110 112 117 119	118	150	152 151	160	16 16		
Green	GaP										331 336		341 346	310 315		350 355		360 365			
Yellow	GaP											440 445				450 455		460 465			
Red	GaP											240				250	252 251				



				EACH	
Stock No.	Mfr's Type	Description	1- 24	25- 98	100- Up
555-5919 555-9920 555-9901 555-9902 555-9903	FLS 001 FLS 010 FLV 100 FLV 102 FLV 104	Panel Adapter for FLV102 Panel Adapter for FLV110 Point Source Vis, LED Red Diffuse Indicator Vis, Narrow-Beam LED	.10 .08 1.00 .81 2.50	.07 .06 .80 .74 2.00	.06 .05 .60 .56
555-9905 555-9906 555-9923 555-9924 555-9200	FLV 108 FLV 110 FLV 111 FLV 112 FLV 117	Diffuse Indicator Red Diffuse Indicator Point Source Vis. LED Diffuse Indicator Red Diffuse Indicator	.92 .55 .75 .75	.74 .50 .60 .60	.56 .37 .45 .45
555-9201 555-9202 555-9203	FLV 130 FLV 131 FLV 140	Red Diffuse Indicator Red Backlighting Lamp Red Diffuse Indicator	.66 .66	.60 .60	.45 .45 .45
555-9204 555-9205 555-9206	FLV 141 FLV 150 FLV 151	Red Backlighting Lamp Red Diffuse Indicator Red Backlighting Lamp	.66 .66	.60 .60	.45 .45 .45

				EACH	
Stock No.	Mfr's Type	Description	1-	25- 98	100- Up
555-9207 555-9208 555-9209 555-9201 555-9211	FLV 152 FLV 160 FLV 161 FLV 162 FLV 198	Red Backlighting Lamp Red Diffuse Indicator Red Backlighting Lamp Red Backlighting Lamp Red Backlighting Lamp	1.01 .81 .81 1.01 1.10	.92 .74 .74 .92	.69 .55 .55 .69
555-9212 555-9213 555-9214 555-9215 555-9216	FLV 199 FLV 240 FLV 250 FLV 251 FLV 252	Red Diffuse Indicator Red Diffuse Indicator Red Diffuse Indicator Red Backlighting Lamp Red Backlighting Lamp	1.10 1.45 1.45 1.45 1.45	1.00 1.10 1.10 1.10 1.45	.60 .83 .83 .83
555-9217 555-9218 555-9219	FLV 310 FLV 315 FLV 331	Green Diffuse Indicator Green Diffuse Indicator Green Backlighting Lamp	1.45 1.15 1.45	1.10 .88 1.10	.83 .66 .83
555-9220 555-9221 555-9222	FLV 336 FLV 341 FLV 346	Green Backlighting Lamp Green Backlighting Lamp Green Backlighting Lamp	1.15 1.45 1.15	.88 1.10 .88	.66 .83

				EACH	
Stock No.	Mfr's Type	Description	1-24	25- 98	100- Up
555-9223 555-9224 555-9225 555-9226 555-9227	FLV 350 FLV 351 FLV 352 FLV 355 FLV 356	Green Diffuse Indicator Green Backlighting Lamp Green Backlighting Lamp Green Diffuse Indicator Green Backlighting Lamp	1.45 1.45 1.93 1.15 1.15	1.10 1.10 1.45 .88	.83 .83 1.10 .66
555-9228 555-9229 555-9230 555-9231 555-9232	FLV 360 FLV 365 FLV 440 FLV 445 FLV 450	Green Diffuse Indicator Green Diffuse Indicator Yellow Diffuse Indicator Yellow Diffuse Indicator Yellow Diffuse Indicator	1.53 1.20 1.45 1.15 1.45	1.15 .90 1.10 .88 1.10	.87 .68 .83 .66
999-9233 555-9234 555-9235	FLV 451 FLV 452 FLV 455	Yellow Backlighting Lamp Yellow Backlighting Lamp Yellow Diffuse Indicator		1.10 1.45 .88	.83 1.10 .66
555-9236 555-9237 555-9238	FLV 456 FLV 460 FLV 465	Yellow Backlighting Lamp Yellow Diffuse Indicator Yellow Diffuse Indicator	1.15 1.50 1.15	.88 1.15 .88	.66 1.04 .66



GALLIUM ARSENIDE PHOSPHIDE LIGHT EMITTING DIODES

CM4-50A SERIES. For indicators and arrays. CM4-50 Clear—transp. CM4-52 Red—transl. (diffused). Max. Rat. @ 25°C: Cont. Fwd. A—40mA. Pk. Fwd. A—3A. Rev. V=3V. Electro-Optical Char. @ 25°C: Lum. Inten.—CM4-50, 1.4 mcd; CM4-53, 1.0 mcd at 20mA. Fwd. V—1.7V typ.; 2V max. 80° viewing angle. 649-0450. CM4-50A. 1-99 .62 100-999 .50 1000-Up .39 649-0453. CM4-53A. 1-99 .62 100-999 .50 1000-Up .39

CM4-73A SERIES. Plastic encap. Red light in 660 nm region. 110° viewing angle. For indicators and displays. Max. Rat. @ 25°C: Cont. Fwd. A—50mA. Pk. Fwd. A—3A. Rev. V—3V. Electro-Optical Char. @ 25°C: Lum. Inten. 2 mcd typ. at 20mA. Fwd. V—1.6V typ.; 2V max. 649-0473. 1-99... 1.03 100-999....71 1000-Up....65

CM4-83 SERIES. Plastc encap. Red light in 660 nm region. Red diffused lens; T-1½ size. Panel, back lighting appli. Max. Rat. @ 25°C: Cont. Fwd. A-100mA. Pk. Fwd. A-3A. Rev. V-3V. Electro-Optical Char. @ 25°C:

Lum. Inten.—1.5 mcd min.; 3.0 mcd typ. at 20 mA. Fwd. V—1.6V typ.; 2.2V max. 24° viewing angle. 649-0483. 1-99 Ea. 1.03 100-999 Ea. .71 1000-Up Ea. .65

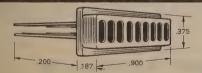
CM4-20 SERIES. Panel mount indicators. Mtg. clip. CM4-20 Clear—transp. CM4-21 Clear—transl. (diffused). CM4-22 Red—transp. CM4-23 Red—transl. (diffused). Max. Rat. @ 25°C: Cont. Fwd. A—100mA. Electro-Optical @ 25°C: Lum. Inten.—CM4-20, 2 mcd; MC4-21 and -22, 1.6 mcd CM4-23, .04 mcd typ. at 20mA. Fwd. V—1.6V. 649-0420. Type CM4-20. 649-0421. Type CM4-21. 649-0422. Type CM4-22. 649-0423. Type CM4-23. 1-99. .Ea. 1.03 100-999. .Ea. .71 1000-Up. .Ea. .65

CM4-43 SERIES. Plastic encap. Rad. in 660 nm region. Red diffused lens and T-1 size. High density arrays and indicators. Max. Rat. @ 25°C: Cont. Fwd. A-40mA. fwd. A-3A. Rev. V-3V. Electro-Optical Char @ 25°C: Lum. Inten.

1.6V typ.; 2V max. 90° viewing angle. 649-0443. 1.99 Ea. .59 100-999 Ea. .39 1000-Up Ea. .35

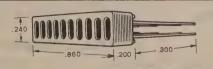
CM4-31 SERIES. Plastic encap. Rad. red in 660 nm region. Clear diffused lens. Indicators and back lighting. Max. Rat. @ 25°C: Cont. Fwd. A—50mA. Pk. Fwd. A—3A. Rev. V—3V. Electro-Optical Char. @ 25°C: Lum. Inten. 2.5 mcd typ. at 20mA. Fwd. V—1.6V typ.; 75° angle. 649-0431. 1-99 Ea. .68 100-999 Ea. .45 1000-Up Ea. .39

RED CM4-7 AND CM4-8 SERIES, Interchangeable with industry standard T-134 incandescent lamps. Rated 70°C. Wide angle visibility. High brightness. Red. Transp.: CM4-7025 (Bi-Pin Base); CM4-8025 (Midget Flange Base)—Rated 1.7 VDC; 50mA at rated voltage; 1.5-1.7 VDC Oper.; 625" M.O.L. Clear Transp.: CM4-7027 (Bi-Pin Base); CM4-8027 (Midget Flange Base) same as above. 649-7025. Type CM4-7025. 649-8025. Type CM4-8025. 649-8025. Type CM4-8025. 1-24...Ea. 1.87 25-99...Ea. 1.23 100-Up...Ea. 99



The use of optical reader systems for reading punched tape and punched cards offers many advantages over older mechanical readers. The read head consists of array of phototransistors electrically isolated and mounted on 87-mil, 100-mil or 250-mil centers. Optical card and punched tape source/sensor reader arrays are comprised of 1) group of phototransistors or photodiodes arranged in precsion package and 2) corresponding number of infrared light emitting diodes. ber of infrared light emitting diodes.

Source/sensor arrays are the FPA 100, FPA 101 and FPA 102. Readers (sensors only) are the FPA 700/700A, FPA 70/710A, FPA 720/720A. The FPA 100, 700 and 700A are 9-element arrays on 100-mil centers. The FPA 101, 710, 710A are 12-element arrays on 250-mil centers. The



ARRAYS FPA 102, 720, 720A are 10-element arrays on 87-mil centers. LED arrays provide several important advantages over filament lamps for use in read head assemblies: LEDs have longer life and eliminate the inherent problems associated with filament sag due to aging, resulting in higher overall reliability; better environmental stability; small size allows them to be placed close together and reduces problems caused by extraneous light; very low power requirements; compatibility with IC's; low heat dissipation. Applications include: punched tape readers, punched card readers, badge readers, position detectors, shaft encoding, telephone dialer, multi-channel couplers, punched credit card readers, pollution monitors. read only memori pollution monitors.



				EACH	
Stock No.	Mfr's Type	Description	1- 24	25- 99	100- Up
555-9932 555-9933 555-9934	FPA 101 FPA 102 FPA 103	Read Set 9-elem. 100 mil 12-element I/R Card Reader 10-element I/R Card Reader Reflect Transducer Reflect Transducer, 1:3	65.13 91.85 75.99 9.52 12.72	48.00 68.00 57.00 5.98 8.00	4.49 6.00
555-9939 555-9940	FPA 700	Reflect Transducer, 1:2 9-element Sensor Array A Sens. Array,9-elem. CM 12-element Sensor Array	12.00 26.55 30.39 38.08	10.65 19.90 22.75 28.50	
555-9943	FPA 720	12-element Sensor Array 110-element Sensor Array 10-element Sensor Array		34.00 24.10 28.50	

Linear Integrated Circuits

COMPLETE FAMILY OF LINEAR INTEGRATED CIRCUITS

A complete family of linear integrated circuits, specifically designed to meet industrial and process applications. Select from a wide variety of operational amplifiers, voltage regulators, comparators and interface circuits. Used in proper combination, they readily accomplish such system functions as intrumentation amplifiers, data acquisition, computation, power supplies, test equipment and more. Whatever the need, there is a combination of linear integrated circuits that will perform it precisely, economically and reliably.

These devices can be classified simply as system problem solving analog gain blocks. They offer economically attractive system solutions in the design of industrial equipment. Monolithically designed using patented Planar epitaxial process.

HOW TO ORDER

A simplified ordering procedure for linear integrated circuits includes three basic units of information in the order code:

709 D M
Device Type Package Style Temperature Range

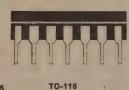
Device Type: Four to seven alpha-numeric characters define the functional and electrical characteristics.

Package Style: H-TO-5 metal case; D-ceramic (hermetic) DIP; T-8-lead plastic DIP; P-plastic DIP; F-flat package.

Temperature Range: Two basic temperature grades: C—commercial/industrial, 0° to $+70/75^{\circ}\text{C}$, -20° to $+85^{\circ}\text{C}$, -40° to $+60^{\circ}\text{C}$; M—military, -55° to $+125^{\circ}\text{C}$, -55° to $+85^{\circ}\text{C}$.

Examples: 741DC is the 741 ceramic DIP, commercial temperature range. 709AFM is 709A grade flat pack, military temperature. Marking: All units marked with type no., package, date code.

To-



OPERATIONAL AMPLIFIERS

The μ A709 was developed in 1967, and pioneered the development of monolithic operational amplifiers. The μ A709 industry standard was followed by such other standards as the μ A741 internally-compensated amplifier, the μ A715 high speed operational amplifier, the μ A725 high gain low noise opera-

tional amplifier, and the μ A791 power operational amplifier. Today, this line of operational amplifiers covers every conceivable requirement from low drift to high slew rate and from low noise to high input impedance. Following is a Selection Guide for Commercial Operational Amplifiers.

							RPOSE						GE		URPOSE			HIGH	LOW
					TAILORE									COMPENSA				POWER	POWER
PARAMETER	UNIT	μA702	μΑ709	μΑ739	μA748	μA749	μA777	201	201A	301A	307	310	μΑ741	μA741E	μA776	μΑ747	1458	μA791	μA77
		DC Wide Band		Dual Low Noise	, .	Dual					2	Voltage Follower	Industry Standard	High Perform- ance	Program- able ISET=15µA	Dual Industry Standard	Dual	1 Amp	150 μW Programable ISET = 1.5μA
Input Offset Voltage	Max (mV)	5.0	7.5	6.0	6.0	6.0	7.5	7.5	2.0	7.5	7.5	7.5	6.0	3.0	6.0	6.0	6.0	6.0	6.0
Input Offset Current	Max (nA)	2000	500	1000	200	500	50	200	10	50	50	-	200	30	25	200	200	200	6.0
Input Bias Current	Max (nA)	7500	1500	2000	500	1000	250	500	75	250	250	7.0	500	80	50	500	500	500	10
Voltage Gain	Min (V/mV)	2.0	15	6.5	20	15	25	20	25	25	25	.999x10-3	20	50	50	20	20	20	50
Operating Supply Voltage Range	Min (V) Max (V)	+6.0, -3.0 +14, -7.0		± 4.0 ± 18	±5.0 ±18	±4.0 ±18	± 5.0 ± 20	± 5.0 ± 20	± 5.0 ± 20	± 5.0 ± 20	± 5.0 ± 18	±5.0 ≠18	± 5.0 ± 18	± 5.0 ± 22	± 1.2 ± 18	± 5.0 ± 18	± 5.0 ± 18	± 5.0 ± 18	±1.2 ±18
Unity Gain Bandwidth	Typ(MHz)	30	1.0	10	1.0	10	1.0	1.0	1.0	1.0	1.0	20	1.0	1.0	1.0	1.0	1.0	0.2	0.2
Siew Rate ACL= 1 ACL= -1 ACL= 10	Typ (V/μs)	3.5 3.5 5.0	0.3 0.3 3.0	1.0 2.5 8.0	0.5 6.0 2.0	1.5 2.5 8.0	0.5 6.0 2.0	0.5 6.0 2.0	0.5 6.0 2.0	0.5 6.0 2.0	0.5 0.5 0.5	30	0.5 0.5 0.5	0.7 0.7 0.7	0.7 0.7 0.7	0.5 0.5 0.5	0.5 0.5 0.5	0.5 1.0 6.0	0.1 0.1 0.1
Input Voltage Range Differential Input V	Max (V) Max (V)	+1.5, -6.0 = 5.0	±10 ±5.0	± 15 ± 5.0	± 15 ± 30	± 15 ± 5.0	± 15 ± 30	± 10 —	± 15 ± 30	± 15 ± 30	± 15 ± 30	± 15 ± 30	± 15 ± 30	± 15 ± 30	± 15 ± 30				
Input Offset Voltage Drift	Typ (μV/°C)	10	10	4.0	7.0	3.0	3.0	7.0	3.0	6.0	6.0	10	7.0	3.0	3.0	7.0	7.0	15	3.0
Offset Adjust					×		×	×	×	×	×	×	×	×	×	×		×	×
Output Short Circuit Protecti	ion				×		×	×	×	×	×	×	×	×	×	×	×	×	×
Compensated									تحببا		×	×	×	×	×	×	×		×
Dual				×		×										×	- ×		

		HIG	H ACCUR	RACY INST	RUMENT	ATION	HIC	SH ACC	URACY I	NSTRU	MENTAT	ION			HIGH S	PEED		
			LOW	BIAS CURRE	NT				LOW D	RIFT								
		FET	BIP	OLAR	SUPE	R BETA		DPERATION	AL AMPS		PREAR	MPS						
PARAMETER	TINU	μA740	μA776	μΑ777	108	108A	μA725	μA725A	μA741A	108A	μA726	μΑ727	μA715	μA748	μA776	μA777	101A	110
		High ZIN 1012Ω High Slew Rate	Low Power ISET= 1.5µA		₹ .						IC=10μA			Feed- Forward	Program- able ISET = 500µA	Feed- Forward	Feed- Forward	Voltage Follower
Input Offset Voltage	Max (mV)	20	5.0	2.0	2.0	0.5	1.0	0.5	3.0	0.5	2.5	10	5.0	5 0	5.0	2.0	2.0	4.0
Input Offset Current	Max nA)	0.15	3.0	10	0.2	0.2	20	5.0	30	0.2	50	15	250	200	3.0	10	10	-
Input Bias Current	Max (nA)	0.2	7.5	75	2.0	2.0	100	75	80	2.0	150	40	750	500	7.5	75	75	3.0
Voltage Gain	Min (V/mV)	50	50	50	50	80	1000	1000	50	80		0.06	15	50	50	50	50	999x10-
Operating Supply Voltage Range	Min (V) Max (V)	± 5.0 ± 22	± 1.2 ± 18	± 5.0 ± 20	± 5.0 ± 20	± 5.0 ± 20	± 3.0 ± 22	± 3.0 ± 22	± 5.0 ± 22	±20	±50 ±18	± 9.0 ± 18	≠ 6.0 ≠ 18	± 5.0 ± 22	±1.2 ±18	± 5.0 ± 20	± 5.0 ± 20	± 5.0 ± 18
Unity Gain Bandwidth	Typ (MHz)	3.0	0.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	20	1.0	65	1.0	1.2	1.0	1.0	20
Slew Rate ACL=1 ACL=-1 ACL=10	Typ (V/μs)	6.0 6.0 - 6.0	0.1 0.1 0.1	0.5 6.0 2.0	0.3 0.6	0.3 0.6	_	Ξ	0.6 0.6 0.6	0.3 0.6	Ē	=	18 100 38	0.5 6.0 2.0	15 15 15	0.5 6.0 2.0	0.5 6.0 2.0	30
Input Voltage Range	Max (V)	± 15	± 15	± 15	± 15	± 15	± 22	± 22	± 15	± 15	± 30	± 10	± 15	± 15	± 15	±15	± 15	±15
Differential Input V	Max (V)	±30	± 30	± 30	± 0.5	± 0.5	± 22	± 22	± 30	± 0.5	± 5.0	± 15	± 15	±30	±30	±30	±30	-
Input Offset Voltage Drift	Typ (μV/ C) Max (μV/ C)	20	3.0	3.0 15	3.0 15	1.0 5.0	0.5 5.0	0.5 2.0	3.0 15	1.0 5.0	0.2 1.0	0.6 1.5	6.0	7.0	3.0	3.0	3.0 15	6.0
Offset Adjust		X	X	X			X	X	X		X		X	X	X	X	X	X
Output Short Circuit Prote	ection	X	X	X	X	X	X	X	X	X	Х	X	أخنسا	Х	X	X	X	X
Compensated		X	X						Х		X							

VOLTAGE COMPARATORS



The μA710 is a differential voltage comparator for applications requiring high accuracy and fast response time—variable threshold Schmitt trigger, pulse height discriminator, hi-speed A/D converters. The μA711 is a dual differential voltage comparator intended primarily for core-memory sense amplifer applications, window discriminator in pulse height detectors and a double-ended limited detector for automatic Go/No-Go test equipment. The μA734 is a precision voltage comparator specifically designed for high accuracy level sensing and measuring applications—useful for analog-to-digital converters with 12 bit accuracies. The μA750 dual comparator subsystem consists of two independent high current comparators with input inhibit capability, ideal as a comparator for driving relays or indicator lamps. The μA760 is a differential voltage comparator offering considerable speed improvement over the μA710 family and operation from symmetric supplies of +4.5V to +6.5V. The 311 is a monolithic, low input current voltage comparator for driving lamps or relays and switching voltage.

VOLTAGE COMPARATOR SELECTION GUIDE

PARAMETER	UNITS	311	μΑ710	μA711	μA734	μA750	μA760
Input Offset Voltage, Max.		10	5.0	5.0	7.5	20 (4) + Hyster.	6.0
Temperature Coefficient of							
Input Offset Voltage	µV/°C	6.0	5.0	5.0	3.5	100	3.0
Input Bias Current, Max.	MA	0.3	40	150	0.15	5.0	6
Input Offset Current, Max.	μA	0.07	7.5	25	0.045	N.A.	7.5
Supply Voltage	V	$0. \pm 5.0 \text{ to} \pm 15$	+126.0	+126.0	$\pm 5.0 \text{ to } \pm 15$	+24	± 4.5 to ±
Response Time (ns)	ns	200	40	40	200	470	16
Input Voltage Range	٧	±14	± 5.0 (†)	±5.0 (†)	± 5.0	3 to V+ -2	± 4.0
Output Voltage Swing	V	N.A.	-0.5 to -3.2	-0.5 to $+3.2$	0 to +8.0	V+ -2	0 to = 3.
Voltage Gain, Min.	V/mV	200 (4)	0.8	0.5	25	N.A.	5.0 (t)
Power Consumption, Max.	snW	205	150	230 (#)	145	150 (t)	325
TTL Fanout	_	5.0 (Min.)	1	1	2	20	2
Diff, Input Voltage Range	٧	± 16	± 5.0	± 5.0	± 10	± 5.0	± 5.0

Typical values at 25°C unless otherwise specified. *minimum or maximum value for T_A from 0° to 70°C, †V_ = -7.0 V, ‡typical, # T_A = +25°C.

Linear Integrated Circuits

COMPREHENSIVE LINE OF MONOLITHIC VOLTAGE REGULATORS

Includes fixed output, three-terminal regulators for a range of output voltages from 5.0 V to 30 V. A line of flexible precision regulators for all applications, including positive, negative, tracking and switching, is available. Every device has built-in overload protec-

tion. The 7800 is available in TO-3 and TO-220; 109 available in TO-3; 723, 78MOO Series, 104 and 105 are available in TO-5 package; 376 is available in 8-lead mini-DIP. * Indicates % Vour. † Typical for 78MXX Series. ‡ Typical for 723.



	1	1			FIVER	DOGLE	1-						****				-						
						POSITIV O SERIE:					FIXED POSITIVE					A	DJUST			ADJUST NEGAT			
PARAMETER	Unit	μA7805	μA7806	μA7808	μΑ7812	μΑ7815	μΑ7818	μA7824	209	309	μA78M0	5µA78M00	6μA78M08	BμΑ78M12	μΑ78M1	μA78M20	μΑ78N-2-	4 A723		305A	376	uA723	-
Input Voltage Range	Min. (V) Max. (V)	7.0 35	8.0 35	10 35	14 35	17 35	20 35	26 40	7.0 35	7.0 35	7.0 30	8.0 30	10 30	14 35	17 35	22 40	26 40	9.5 40	8.0	8.5 50	9.0	-40 -9.5	40 8.0
Output Voltage	Min. (V) Max. (V)	4.8 5.2	5.75 6.25	7.7 8.3	11.5 12.5	14.4 15.6	17.3 18.7	23 25	4.7 5.3	4.8 5.2	4.8 5.2	5.75 6.25	7.7 8.3	11.5 12.5	14.4 15.6	19.0 21.0	23 25	2.0 37	4.5	4.5	5.0 37	-37 -2.0	-30 0
Output Current	Max. (mA) Peak (mA)	1000 2200	1000 2200	1000 2200	1000 2200	1000 2100	1000 2100	1000 2100	1000 2200	1000 2200	500 750	500 750	500 750	500 750	500 700	500 700	500 700	150	20	45	25	150	20
Line Regulation	Max. (%) *†	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.1	0.06	0.06	0.03	0.1	0.1
	Max. (%) *†	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.05	0.2	0.2	0.6	0.02
Quiescent Current	Max. (mA) †	8.0	8.0	8.0	8.0	8.0	8.0	8.0	10	10	4.2	4.3	4.3	4.3	4.4	4.5	4.6	40	2.0	2.0	2.5	4.0	5.0
Ripple Rejection	Min. (dB) f= 120 Hz†‡	62	59	56	55	54	53	50	_		78	75	72	71	70	69	66	74	60			74	60
Dropout Voltage	Typ. (V) IOUT = IMax.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0
Output Voltage Drift	Typ. (mV/°C) Max. (%/°C)	-1.1	-0.8	0.8	1.0	-1.0	-1.0	-1.5 -	-0.75	0.8	_	-	-		_	-	-	0.015	1.0	1.0	_	0.015	1.0
OPERATIONAL	AMPLIFIERS	X	X	X	X	X	X		Х	X	X	X	Х	X	X	X		X	X	X	Χ	X	X
TTL SYSTEMS	3	X							X	Х	Х								χ	X	Х	X	
MOS SYSTEM	S	X			CMOS				X	Х	X			CMOS				X	X	X	X	X	X
ECL SYSTEMS																			X	Х	Х	X	X
CONSUMER			X	X	بنصح			X								X	X	X				X	
								الأوالة														-	



INTEGRATED CIRCUITS

CONSUMER CIRCUITS

AUTOMOTIVE, APPLIANCE, AUDIO, AM/FM

	J.	PPLI	ANCE															
		CONT		AUE	10 CI	RCUIT	s				AM/FN	REC	EIVER	CIRCU	ITS			
				Prea	mplifi	er Po	wer A	mplifie	г	A	M, FM	, IF & I	Detect	or .	Stei	eo Dec	oders	
DEVICE TYPE	μ A 741	μ Α 742	μ Α 7350	μ Α 739	дА 749	μ A 706	д A703	3μ Α 720	μ A 753	μ Α 757	2136	3075	3076	μ A 732	μ Α 758	μ Α 767	μ Α 768	μ A 769
Audio Driver												X						
Audio Pre-Amp. Single/Dual		313	c	X	х									X	Х	Х	Х	×
Audio Power Amp, Single/Dual						x					,		,					
Audio Mute														X	Х		Х	
AGC								Х		X								
Comparator			X															
Converter								X										
Detector						_				X	Х			×	Х	Х	Х	X
IF Amplifier							X	Х	X	X	X	X	X					
Limiter							X		. X	Х	Х	X	Х					-
Mixer		1					X	X		Х								
Modulator										Х						-4		
Oscillator							Х	X						Х	X	. X	Х	
Operational Amplifier	. х		X															
Regulated Power Supply								Х	X		X	X			· X			
Stereo Switch			1											X	Х		X	
RF Amplifier								X			-							
Tachometer			X															
Thyristor & SCR Control		Х	1															
Voltage Regulator								Х	X		X	X	X					

CONSUMER TYPE INTEGRATED CIRCUITS

The application of linear integrated circuit technology to consumer electronics, pioneered with the µA703 RF-IF amplifier in 1967, is now a production reality.

Today, systems from video tape recorders to television receivers to automotive control systems are performing complex functions at greater component economies than at any previous time. Linear second generation technology has made possible advanced standard circuits such as the #A758 phase-locked loop stereo decoder and the #A7800 series of three-terminal voltage regulators. Other advanced products include custom camera circuits utilizing MOS, linear and digital circuitry and technology. Many other complex linear circuits are being developed for consumer applications from automotive to television to electronic calculators.

The consumer linear team is working with customers to bring to the market linear circuits which will optimize cost and performance requirements of consumer products, and they are being reliably produced in volume.

TV, VOLTAGE REGULATORS, VTR

									T	v, vo	DLTAG	E RE	EGUL
				TV R	ECEIV	ER CIF	RCUIT	rs					
	AFT Chroma Processing 2 Chip NTSC/3 Chip NTSC/2 Chip PAL									AGE	TAPE RECORDER SYSTEMS		
DEVICE TYPE	3064	3066	3067	μ Α 746	μΑ 780	μ A 781	A 786	μ3065	μ Α 723	μ Α 7800	μ Α 78 Μ 00	μ A 733	μ Α 796
Audio Driver							1	Х					
AFC/AFT	Х										*		
ACC .		Х											
Chroma Amplifier		Х				Х					4, 4		
Chroma Demodulator			X	×			Х						
Chroma Processor		Х			Х								
DC Amplifier	X			,									
Detector	Х							Х					
Demodulator													X
Electronic Attenuator						X		X					
IF Amplifier	Х							Х					
Limiter								X					
Luminance Amplifier												Х	
Modulator													X
Oscillator		Х			Х								
Regulated Power Supply	Life()			· X	x	х		х					
Tint Control			Х		Х								
Voltage Regulator					Х			X	Х	Х	Х		
Video Amplifier												Х	



16

TO 10

COMPUTER/INTERFACE INTEGRATED CIRCUITS

Interface circuits, a major category within linear integrated circuits, perform the interface between analog and digital systems, and can be categorized by the function they perform, as follows:

Data Transmission (Line Driver and Receivers). These devices adapt TTL signal levels for transmission over data transmission line and back to TTL signal levels at the receiving end of transmission line.

Display Drivers (LED Drivers). These devices convert MOS and TTL signal levels to high output currents for driving LED displays.

Memory Driving and Sensing. Convert TTL signal levels to appropriate signal required by the memory system. Sense amplifiers convert the small output signals to TTL signal level.

General Purpose Drivers (Peripheral Drivers). These devices convert TTL signal levels to high voltage and current output levels.

D/A and A/D Conversion and Tape and Disc File Amplifiers.

Digital Integrated Circuits

DIGITAL INTEGRATED CIRCUITS

Here is a broad assortment of digital integrated circuits, including ECL, TTL, DTL, CUL and RTL. The need for system compromise between high speed and high density has been resolved with the introduction of Isoplanar™. The Isoplanar™ process is a new method of achieving electrical isolation between various components in an integrated circuit. It also greatly simplifies and improves the quality of the fabrication process, resulting in smaller, denser, faster and more reliable products with higher yield. Isoplanar™ offers more for your dollar-MOS density, speed of bipolar, high reliability, devices compatible with voltage and logic levels of standard ECL and TTL families, wider choice of speed/power trade-offs, more efficient use of energy and smaller chip size while reducing costs.

This TTL family is the most complete line of TTL products available today. There are over 250 circuit functions with more than 100 MSI devices from which to choose. The family consists of logic, memory and interface functions and is a unique blend of proprietary circuits and a large number of second source devices. It is engi-

neered to provide the system designer with a complete line of standard off-the-shelf functional building blocks to achieve a given performance for the lowest total system cost. These building blocks can be interfaced directly with each other in the same system to provide optimum speed/power combinations.

There are an almost overwhelming variety of alternative digital circuits. There's DTL, which is slower than the earlier RTL, but easier to use. It offers improved noise margins and fan out. TTL, its faster cousin, offers high speed, better noise immunity and drive capability. It has the largest number of standard complex devices and various speed/power tradeoffs. CTL offers higher speed at moderate cost and power dissipation. It requires a more experienced user because the logic levels are non-restoring. ECL, for very fast systems, offers the highest speed and drives terminated transmission lines. CMOS offers extremely low power consumption when operated at low speed. Its complexity is comparable to TTL and its speed is between MOS and TTL.

This family breaks out the various families as follows:

	Diodito del tito tarrodo raminos a
9000	Medium Speed SSI
9100	Low Power SSI
9600	Monostable SSI
93400	Memory Elements
9H00	High Speed SSI
9500	Temperature Compensated ECL

9N00	Standard SSI
9300	Standard SSI
9500	Schottky SSI
9SL00	Low Power MSI
93500	Schottky MSI
95100	Totally Compensated ECL

ORDERING INFORMATION

The ordering procedure for digital integrated circuits includes three basic units of information in the ordering code:

9310	D	C
Device	Package	Temperature
Type	Style	Range

Device Type: Four to seven alpha-numeric characters define the functional and electrical characteristics of the device.

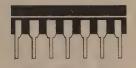
Package Style: One letter represents the basic package style: D-dual-in-line ceramic (hermetic), E-plastic can, F-flat package (hermetic), H-metal can, P-dual-in-line plastic.

Temperature Range: Two basic temperature grades are in common use: C-commercial/industrial, 0° to +75°C ((or 75°C); M-military, -55° to +125°C. Exact values and conditions are indicated in the data specifications.

Examples: 93L28FM is a 93L28 register in flat package with military temperature rating capability. 9317BDC is a 9317 decoder/driver with B voltage option in a ceramic dual-in-line package with commercial temperature rating.

Markings: All devices are marked with type number, package style and date code.

LSI MEMORIES



F	Туре	Organiz	ation	Decoding	Wired- OR	Address	Chip Select	Power
Function	No.	Words	Bits	Scheme	Output	Access ns	Access ns	Per Bit mW
16-Bit RAM	93407 93433	16 16	1	1-of-4/1-of-4 Coincident Select	X X	15 15		20 20
64-Bit RAM	93403 93435	16 16	4 4	Full 1-of-16 Select	×	40 20	40 20	8
256-Bit RAM	93400 93410	256 256	1	3-of-6/3-of-6 Full	×	70 30	70 20	1.8
1024-Bit RAM	93415	1024	1	Full	Х	75	40	0.5
8-Bit Multiple	9338	8	1	Full		25		50

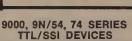
TTL/SSI

These TTL/SSI Devices offer:

- A series of high speed functions
- Low power TTL gates and flip-flops
- High speed gates and flip-flops
- Super high speed devices



TO-86



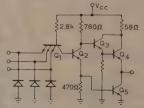
A broad family of SSI devices which are pin and function identical with the popular 7400 series. These gates and binaries are available in industrial and military temperature ranges, in dualin-line or Flat package. This series includes NAND gates, NOR gates, Exclusive-OR gates, AND gates, open collector gates, as well as single and dual flipflop circuits.

Features: 10 ns typical gate delay time (8 ns for 9000 series); 10 mW typical gate power dissipation. Input clamp diodes minimize termination effects. Military and industrial temp. ranges. Dual-in-line or Flat pkg.

9L SERIES LPTTL/SSI DEVICES

LOW power TTL gates and flipflops offer a speed/power tradeoff well suited to both industrial and military applications. Power is one-fourth that of standard TTL gate; system speeds to 10 MHz are possible. 9L series TTL/SSI functions are used with 93L low power TTL/MSI devices to implement low power, moderate speed systems.

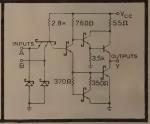
Features: 20 ns typical gate delay time; 2 mW typical gate power dissipation. Input clamp diodes minimize termination effects. Darlington output increases circuit speed. Military or industrial temperature range; DIP or Flat package.



9H/54H, 74H SERIES HSTTL/SSI DEVICES

The 9H/54H, 74H series is a line of high speed gates and flip-flops which are pin and function identical with the popular 74H00 series. These devices are used with the 9300 and 93H series of TTL/MSI devices to substantially reduce critical patch delay times and enhance overall system speeds.

Features: 6 ns typical gate delay; 22 mW typical gate power dissipation. Input clamp diodes minimize termination effects. Darlington output stage to increase circuit speed. Military or industrial temperature range; dual-in-line or Flat package. 11 functions available.



9S/54S, 93S, 74S SERIES TTL/SSI DEVICES

Super high speed devices feature Schottky-barrier diode clamping on all normally saturated devices. The result is an overall improvement in propagation dedays and greatly reduced sensitivity of delay times to temperature variation. Can be used with 93500 series MSI logic elements for highest possible system speeds, maintaining typical 1.0 V noise immunity.

Features: 3 ns typical gate delay time; 125 MHz typical input clock frequency for J-K flip-flops; 22 mW gate power dissipation. Input clamp diodes. Low output impedance to drive high capacitive loads.

1	Stan	dard	Low Power	High Speed	Super High Speed
Description	tpd=10 ns Pd= 10 mW per Gate	tpd=8 ns Pd= 10 mW per Gate	tpd = 20 ns Pd = 2 mW per Gate	tpd=6 ns Pd= 22 mW per Gate	tpd=3 ns Pd= 20 mW per Gate
NAND Gates Quad 2-Input Positive NAND Gate Quad 2-Input Positive NAND Gate with Open-Collector Output Triple 3-Input Positive NAND Gate Dual 4-Input Positive NAND Gate	7400 7401 7403 7410 7413	9002 9012 9003	9L00	74H00 74H01 74H10	74S00 74S04
Dual 4-Input Positive NAND Gate Ouad 2-Input High Voltage NAND Gate	7420	9004		9H20, 22/ 74H20, 22	9S20, 22/ 74S20, 22
8-Input Positive NAND Gate	7430	9007		74H30	
NOR Gates Quad 2-Input Positive NOR Gate Quad 2-2-2-4-Input Positive NOR Gate Dual 4-Input Positive NOR with Strobe Dual 4-Input Positive NOR with Strobe Triple 3-Input NOR Gate	7402 7423 7425 7427	9015		ŧ	13 / 13 1, /6
AND Gates Quad 2-Input Positive AND Gate Quad 2-Input Positive AND (0.C.) Gate Triple 3-Input Positive AND Gate Triple 3-Input Positive AND (0.C.) Gate High Speed AND Gate	7408 7409 7411 7412			74H08 74H11 7421	
Exclusive-OR/OR Gates Quad Exclusive-OR Gate Quad Exclusive-OR Gate with Inverted Outputs Quad 2-Input Positive OR Gate	7486 7432	9014	9L86		
AND-OR-INVERT Gates and Expanders Expandable Dual 2-Wide 2-Input AND-OR-INVERT Gate Dual 2-Wide 2-Input AND-OR-INVERT Gate High Speed Expandable 2-2-2-3-Input AND-OR-INVERT Gate Expandable 4-Wide 3-2-2-3-Input AND-OR-INVERT Gate Expandable 4-Wide 2-2-3-1nput AND-OR-INVERT Gate Expandable 4-Wide 2-2-3-3-Input AND-OR-INVERT Gate Expandable 4-Wide 2-2-3-Input AND-OR-INVERT Gate	7450 7451 7453 7454	9005	9L54	74H50 74H51 74H52 74H53 74H54 74H55	
Gate Dual 4-Input Expander	7460	9008 9006		74H60	

	Stan	dard	Low Power	High Speed	Super High Speed
Description	tpd=10 ns Pd= 10 mW per Gate	tpd=8 ns Pd= 10 mW per Gate	tpd = 20 ns Pd = 2 mW per Gate	tpd = 8 ns Pd = 22 mW per Gate	tpd=3 ns Pd= 20 mW per Gate
High Speed Triple 3-Input Expander High Speed 4-Wide 3-2-2-3-Input AND-OR Expander 4-2-3-2-Input AND-OR-INVERT (acte 4-2-3-2-Input AND-OR-INVERT (O.C.) Gate				74H61 74H62	74S64 74S65
Inverters and Buffers Hex Inverter Hex Inverter Hex Inverter Hex Inverter Buffer/Driver (O.C.) Hex Buffer/Driver (O.C.) Hex Buffer/Driver (O.C.) Hex Inverter Buffer/Driver (O.C.) Hex Buffer/Driver (O.C.) Quad 2-Input NAND Buffer	7404 7405 7406 7407 7416 7417 7437	9016 9017	9L04	74H04 74H05	9S04/74 9S05/74
Quad 2-Input NAND Buffer (O.C.) Dual 4-Input Positive NAND Buffer Dual 4-Input Positive NAND Driver	7438 7440	9009		74H40 .	74A40 74S140
Flip-Flops J-K Flip-Flop J-K Master Slave Flip-Flop Other J-K Flip-Flop Dual J-K Flip-Flop	7440 74105 7472 74104	9001 9000 9020 9022		74H71 74H72 74H101 74H102	
Dual J-K Master Slave Flip-Flop	7473 74107	9024	9L24	74H73	9S109
Dual J-K Master Slave Flip-Flop with Preset and Clear Dual D Type Edge Triggered Flip-Flop Other Dual J-K Edge Triggered Flip-Flops	7476 7474	v.	P 3 3 3 3	74H78 74H76 74H106 74H74 74H108	74S74 74S112 74S113 74S114

TTL/MSI

MSI, or Medium Scale Integration, offers 20 to 100 gate complexity. Complex MSI devices offer many advantages over SSI gates and flip flops. They offer increased packing density (more functions on a PC board) and simplified mechanical construction—so there's reduced interconnections. MSI devices have improved system reliability—the meantime between failure (MTBF) of an MSI device is roughly the same as the SSI, so a reduction in package count increases system MTBF. Moreover, the reduced interconnections improve reliability.

MSI/SSI cost comparisons must consider the true total cost, not just the purchase price. This includes an unavoidable

overhead of \$.50 to \$1.50 per circuit—attributable to testing, handling, insertion, soldering, plus the appropriate share of connector, PC boards, power supplies, etc. When this cost is figured onto the purchase price, MSI is more economical even when MSI components are more expensive.

The imaginative use of MSI components reduces the rate of gates and flip flops to that of "glue" between the MSI circuits. The result is an optimized system with more MSI packages than SSI packages, with 80% to 90% of the logic implemented with MSI.



MSI SELECTOR GUIDE/FUNCTIONAL INDEX

MSI DECODERS/DEMULTIPLEXERS

*Type 9334 is an 8-bit addressable latch which can be used as active High decoder or demultiplexer.

Function	Type No.	Active LOW Outputs	Separate Enable	Wired- OR Capability	Select Delay ns	Enable Delay ms	Power Dissip. mW
Dual 1-of-4 (BCD)	9321 93L21	2 x 4 2 x 4	X X		22 50	17 38	150 45
1-of-8	9301 9334 9302	8 8* 8	X X X	x	22 22 30	22 19 30	145 280 145
1-of-10 (BCD)	9301 93L01 9302 9345 9352	10 10 10 10 10		x x	22 63 30 50 24		145 45 145 215 140
1-of-10 (Excess 3)	9353 9354	10 10			24 24		140 140
1-of-16	9311 93L11	16 16	X X		21 70	17 48	175 58

MSI MULTIPLEXERS

Function	Type No.	Enable Input	Comple- mentary Output	Wired- OR Capab.	Data Z Delay ns	Data Z Delay ns	Select Delay ns	Enable Delay ns	Power Dissip. mW				
Quad 2-Input	9322 93L22	X			10 44		19 38	15 30	125 45				
Dual 4-Input	9309 93L09 93153	х	X X		17 34 15	9 18	24 48 22	19	150 40 180				
Single 8-Input	9312 93L12 93S12 9313 93151 93152	X X X X	X X X X	x	19 80 8 26 18	9 18 5 20 10	24 48 12 30 28 28	14 28 7 25 18	135 34 250 135 150 130				
Single 16-Input	93150	Х				10	28	18	200				

MSI DISPLAY DECODER/DRIVERS

Function	Type No.	Output Sink mA	Out- put V	Pull-Up Resis- tors	Ripple Blanking	Blanking Above BCD 9 Input	Power Dissip. mW
1-of-10 (Cold Cathode)	9315 93141	7 7	55 55			х	100 105
1-of-10 (Incandescent, Relays Actuators)	9302 9345 93145	16 80 80	5 30 15			X X X	215 215
7-Segment (Decoder)	9307 9358 9359	11 8 9.6	5 5 5	×	X	\$1 ·	165 265 167
7-Segment (Incandescent or LED)	9317B 9317C 9357A 9357B	40 20 20 20	20 30 30 15		X X X X	X X	220 220 265 265

MSI REGISTERS

Function	Type No.	No. Bits	Serial Data Input	Parallei Data input*	Reset Active	Clock Enable	Shift Freq. MHz	Clock to Output ns	Power Dissip. mW
General Purpose	9300 93L00 93H00 93H72 9394 9395 9396 93178 93179	4 4 4 4 4 5 4	J-K J-K D D D	S S S S A S A S S S	L L H L	X X X	35 10 55 60 15 36 15 22 22	55 10 10 25 21 25 25 25	300 75 375 400 175 250 240 170 270
Parallel-In/ Parallel-Out	93198	8	D	S	L	X	35	20	370
Serial/Parallel Converters	93164 93165	8	D D	Α	L	х	20 20	20 20	180 230
Multiple Port	9338	8	D					25	265
Serial-In Serial-Out	9328 93L28	16 16	D		L	X	25 10	15 50	300 75

*S indicates Synchronous; A indicates Asynchronous.

Digital Integrated Circuits

A COMPLETE FAMILY OF DIGITAL INTEGRATED CIRCUITS

ORDERING INFORMATION

A new, simplified ordering procedure for digital integrated circuits includes three basic units of

D Package Style

Temperature Range

Device Type: Four to seven alpha-numeric characters define the functional and electrical characteristics of the device.

Package Style: One letter represents the basic package style: D-dual-in-line ceramic (hermetic), E-plastic can, F-flat package (hermetic), H-metal can, P-dual-in-line plastic.

Temperature Range: Two basic temperature grades are in common use: C-commercial/industrial, 0° to +75°C (or 75°C); M-military, -55° to +125°C. Exact values and conditions are indicated in the data specifications.

Examples: 93L28FM is a 93L28 register in flat package with military temperature rating capability. 9317BDC is a 9317 decoder/driver with B voltage option in a ceramic dual-in-line package with commercial temperature rating.

Markings: All devices are marked with new type number, package style and date code.

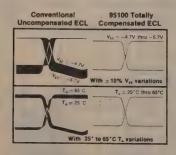
TOTALLY COMPENSATED ECL LINE

FULLY COMPENSATED 95100 SERIES

The 95100 series adds on-chip power supply voltage compensation to the industry's lowest power, high speed ECL gates. Useful noise margin is guaranteed with differential supply voltages from -4.7 V to -8.0 V. Combined with the original temperature compensation feature of the 9500 series, this 95100 series offers the system designer the easiest ECL of all to use, through the following features: typical propagation delay of 2 nanoseconds; broad range of MSI and SSI functions; unloaded gates less than 25 mW/gate; voltage and temperature compensation greater than 3 volts and 75°C; pinouts compatible with F 10,000 series. Diagrams below show stability despite voltage/temperature variations. temperature variations.

VOLTAGE COMPENSATION 10K SERIES

Offers plus-voltage compensation and full compatibility with existing 10,000 series ECL. If an upgrade of a present 10K system is required, or the elimination of some noise margins is a problem, consider these 10K series features: typical propagation delay of 2 nanoseconds; broad range of MSI and SSI functions; unloaded gates less than 24 mW/gate; voltage compensation; plug-in replacement for any 10K series device.



NOISE MARGIN COMPARISON

VIN AND VOUT TRANSFER CHARACTERISTICS

These diagrams indicate the effect on ECL logic levels of variations in power supply and temperature. The $V_{\rm IN}$ and $V_{\rm OUT}$ characteristics show how the 95100 Series maintains stable logic levels despite variations in voltage and/or ambient temperature. The constant—and higher—noise margins permit significant cost savings.

MSI COUNTERS

Function	Type No.	Parallel Load*	Count Enable	Clock Transitions	Async. Clear	Count Rate MHz	tpd ns	Power Dissip. mW
Variable Modulo	9305 93S05			L—H L—H	L	26 · · 100	55 25	195 400
Decade Synchronous	9310 93L10 93S10	SSS	H	L—H L—H L—H	L	45 20 90	15 25 8	325 75 400
Decade Asynchronous	9350 9390 93176 93196	A A		H-L H-L H-L H-L	H H L	18 18 25 70	60 60 30 28	160 160 185 250
Decade Up/Down	9360 93190	A A	Ĺ	L—H . L—H	H	30 25	30 37	300 325
Binary Synchronous	9316 93L16 93S16	SSS	H ;	L—H L—H L—H	L L	45 20 90	15 25 8	325 75 400
Binary Asynchronous	9356 9393 93177 93197	A		H-L H-L H-L H-L	H	18 18 25 70	75 75 30 42	160 160 185 250
Binary Up/Down	9366 93191	A :	L !	L-H L-H	H	30 25	30 37	300 325
Divide by 12	9392			H-L	Н	18	60	160

^{*}S indicates Synchronous; A indicates Asynchronous.

MSI ARITHMETIC OPERATORS ADDERS, A.L.U.'S, COMPARATORS, MULTIPLIERS

Function	Type No.	Description	Number of Bits	tpd ns	Power Dissip. mW
Addition	9380 9304 93H183 9382 9383	Single 1-Bit Full Adder Dual 1-Bit Full Adder Dual 1-Bit Full Adder Single 2-Bit Full Adder Single 4-Bit Full Adder	1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	47 26 12 38 39	105 150 250 176 390
Arithmetic Logic Units	9340 9341 93S41	ALU with Internal CLA ALU with External CLA ALU with External CLA	4 4 4	- 24 24 11	400 450 500
CLA Carry Look-Ahead	9342 93542	For Use with 9341 For Use with 93S41		12 7	180 260
Multiplication .	9344	Binary Full Multiplier	4 x 2	30	550
Compare	9324 93L24 9386	Magnitude Comparator Magnitude Comparator Identity Comparator (Quad EX—NOR)	5 5 4	20 55 18	210 55 170
Parity	9348 93S62	Parity Checker/Generator Parity Checker/Generator	12 9	40 16	270 350
True/Complement Generation	93H87	True/Complement Zero/One Element	4	14	270

MSI ENCODERS

Function	Type No.	Description	tpd ns	Power Dissipation mW
Encoders	9318	8-Input Priority Encoder	25	250
	93L18	8-Input Priority Encoder	55	70

MSI LATCHES

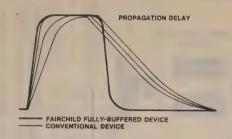
Function	Type No.	R-S Input	D Input	Enable Active	Clear	Reset	tpd Enable ns	tpd Data ns	Power Dissip. mW
4-Bit	9314 93L14 9375 9377	X X	X X X	L , · H H	X	x x	20 70 16 16	10 45 16 16	175 50 160 160
Dual 4-Bit	9308 93L08		×	L L	×	x x	20 65	15 50	340 90
Addressable 8-Bit	9334 *		х	L	х	х	20	30	280

^{*}Addressable latch with single D-Input and three address lines.

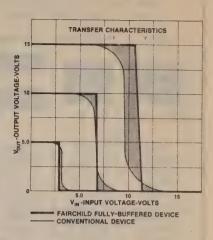
CMOS AND OPTIMOS MOS DEVICES ISOPLANAR CMOS

This new high-density fully buffered Isoplanar CMOS costs about the same as ordinary CMOS and uses the same popular 4000 series pinouts for direct plug-in replacement. The Isoplanar CMOS device offers many advantages. The first is the highest quaranteed noise immunity available. Because buffering permits an increase in voltage gain, transfer characteristics are almost ideal.

Another advantage is standardized outputs. Full buffering means that output drive characteristics are standardized for all part types. Each CMOS devices drives a guaranteed 400 µA at 5 volt power supply, which means it can drive lower power TTL devices and low power Schottky TTL directly. Increased speed system is the third advantage of the Isoplanar CMOS devices. With the buffers in service, output impedance and propagation delay in CMOS gates become independent of the input pattern. System speed using fully-buffered CMOS is sharply improved. Think of CMOS as another TTL, only in some ways better. Instead of burning up 10mW per gate, CMOS requires only 10nW at static conditions. That's one-millionth the power needed for TTL. CMOS devices also work over a broad 3V to 15V power supply range. They're more immune to noise-and make less noise themselves. CMOS operates from -40° to +85°C, commercial, and -55° to +125°C, military, Instead of a dc fanout of 10 like TTL, CMOS fanout is almost unlimited.



Stock No.	Mfr's Type	Description
569-3401	34001	Quad 2-Input NIR Gate
569-3402	34002	Dual 4-Input NOR Gate
569-3411	34011	Quad 2-Input NAND Gate
569-3412	34012	Dual 4-Input NAND Gate
569-3423	34023	Triple 3-Input NAND Gate
569-3425	34025	Triple 3-Input NOR Gate
569-3427	34027	Dual JK Flip-Flop
569-3428	34028	One-of-Ten Decoder
569-3430	34030	Quad Exclusive-OR Gate
569-3481	34811	Quad Exclusive-NOR Gate



OPTIMOS MOS DEVICES

MOS/LSI technology is optimally used only when its great diversity is properly exploited. This OPTIMOS series (optimum MOS in terms of capability and application) offers two proven P-channel MOS processes—silicon gate and high-threshold metal gate, and the flexibility to blend custom and/or standard MOS designs with bipolar SSI/MSI. The silicon gate process is generally more economical, as it provides higher circuit densities, greater operating speeds and, in many instances, requires fewer off-chip components. The two processes are compatible and have been effectively combined in specific custom applications. The superior noise immunity in high-threshold metal gate circuits can often be a welcome adjunct to silicon gate designs. A broad selection of standard circuits will cover a wide range of applications, from industry standards

like the 3534/1103 1K RAM and 3514 4K ROM to new areas like the 3814 Digital Voltmeter Logic and 3261 TV Sync Generator. The full device line, complete with Types and Functions is listed in tables below.

Capable of performing in scientific calculators, cash register terminals, process controls, medical instrumentation, and virtually all areas that require processor control. Computer-aided design programs ensure the custom user of workable "first time" custom results. The manufacturer's heavy investment in test equipment and test pattern generation programs ensures that the product is what you want. A full complement of devices is used to make up the Programmable Processor System (below).

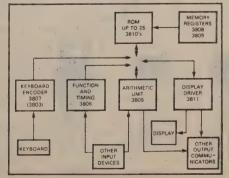
Stock	Mfr's	
No.	Туре	Description
569-3100	3100-DL	Dual 5-input gate
569-3101	3101-DL	Dual J-K flip-flop
569-3102 569-3103	3102-HC 3102-HL	3-input gate 3-input gate
569-3200	3257-ADC	5x7x64 ASCII char. gen.
569-3201	3258-ADC	5x7x64 char. gen., 625ns
569-3202	3258-BDC	5x7x64 char. gen., 695ns
569-3203	3258-CDC	5x7x64 char. gen., 780ns
569-3204	3258-DDC	5x7x64 char. gen., 1000ns
569-3205	3260-ADC	7x9x64 char. gen., 625ns
569-3206 569-3207	3260-BDC 3261-1DC	7x9x64 char. gen., 800ns
569-3208	3261-1DC	Color TV sync generator B&W TV sync generator
569-3300	3300-FC	25-bit 1-phase stat. SR
569-3301	3300-FL	25-bit 1-phase stat. SR
569-3302	3300-HC	25-bit 1-phase stat. SR
569-3303	3300-HL	25-bit 1-phase stat. SR
569-3304 569-3305	3325-HC	4x64 2-phase dyn. SR 3x66 2-phase dyn. SR
569-3306		3x66 2-phase dyn. SR
569-3307	3329-HC	512-bit 2-phase dyn. SR
569-3308	3330-HC	480-bit 2-phase dyn. SR
569-3309	3331-HC	500-bit 2-phase dyn. SR
569-3310	3341-DC	4x64 FIFO memory
569-3311	3342-DC	Quad 64-bit stat. SR
569-3312 569-3313	3343-HC 3344-HC	Dual 128-bit stat. SR Dual 132-bit stat. SR
569-3314	3345-HC	Dual 136-bit stat. SR
569-3315	3346-HC	Dual 144-bit stat. SR
569-3316	3347-DC	Quad 801-bit stat. SR
569-3317	3348-DC	Hex 32-bit stat. SR w/BE
569-3318 569-3319	3349-DC	Hex 32-bit stat. SR 256-bit 2-phase dyn. SR
569-3519	3383-HC 3501-XDC	1024-bit (128x8) st. ROM
569-3501	3501-XDL	1024-bit (128x8) st. ROM
569-3502	3507-XDC	2048-bit (256x8) st. ROM
569-3503	3512-ADC	ASCII to Selectric ROM
569-3504	3512-XDC	Custom 256x8 ROM
569-3505	3513-XDC	Custom 256x10 st. ROM

Stock	Mfr's	
No.	Type	Description
569-3506 569-3507 569-3508 569-3707 569-3708	3514-ADC 3514-BDC 3514-XDC 3700-3DL 3700-3DM	ASCII to EBCDIC ROM EBCDIC to ASCII ROM Custom 512x8 ROM 4-chan. multiplex switch 4-chan. multiplex switch
569-3709 569-3710 569-3711 569-3712 569-3713	3700-3FC 3700-3FL 3700-3FM 3701-FC 3701-FM	4-chan. multiplex switch 4-chan. multiplex switch 4-chan. multiplex switch 6-chan. multiplex switch 6-chan. multiplex switch
569-3714 569-3715 569-3716 569-3717 569-3718	3705-2DC 3705-2DL 3705-3DC 3705-3DL 3708-2DC	8-chan, multiplex switch 8-chan, multiplex switch 8-chan, multiplex switch 8-chan, multiplex switch 8-chan, multiplex switch
569-3719 569-3720 569-3721 569-3722 569-3723	3708-2DL 3708-3DC 3708-3DL 3750-DC 3750-DL	8-chan. multiplex switch 8-chan. multiplex switch 8-chan. multiplex switch 10-bit D/A converter 10-bit D/A converter
569-3724 569-3725 569-3800 569-3801 569-3802	3751-DC 3751-DL 3800-DC 3800-DL 3801-DC	12-bit A/D converter 12-bit A/D converter 8-bit parallel accum. 8-bit parallel accum. 10-bit S/P, P/S conv.
569-3803 569-3804 569-3805 569-3806 569-3807	3801-DL 3803-DC 3805-DC 3806-ADC 3806-XDC	10-bit S/P, P/S conv. PPS-25 keyboard expander PPS-25 arithmetic unit PPS-25 3025 timing unit PPS-25 cust. timing unit
569-3808 569-3809 569-3810 569-3811 569-3812	3807-DC 3808-DC 3809-DC 3810-ADC 3810-XDC	PPS-25 keyboard unit PPS-25 memory PPS-25 memory expander PPS-25 3025 control ROM PPS-25 cust. control ROM
569-3813 569-3814 569-3816	3811-DC 3814-DC 3816-DC	PPS-25 display unit 4½ digit DVM array MOS/SGT programmable divider

PPS-25 PROGRAMMED PROCESSOR SYSTEM

USING MOS INTEGRATED CIRCUITS

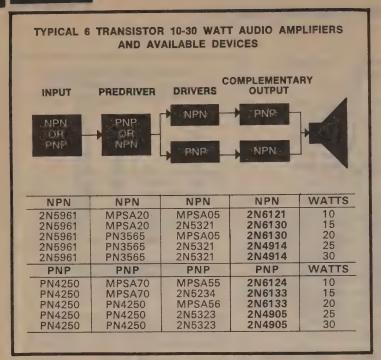
MFR'S TYPE NO. 3025A KIT
Programmable processor system provides all the building blocks needed to construct a digital system that performs combinatorial and sequential logic and data storage. In this set, a few standard MOS/LSI devices replace several hundred TTL MSI or SSI packages. The heart of this buss oriented system is two chips-the 3805 Arithmetic Unit and 3806 Function and Timing Unit. These two chips perform all timing, control and arithmetic functions. Auxiliary to these chips is the 3810 ROM which stores microprograms and data look-up tables. The 3808 and 3809 shift register memory devices store data. Keyboards and control panels may be attached by using the 3803 and 3807 input devices, while data output to displays or other information processing equipment is provided by the 3811. Internally, the chips are designed to handle up to 25 digits (or are entirely optional. Two-phase locks; standard +5 V and -10 V characters). Word length actually used, and format within the word, supplies. Full TTL compatibility at all exernal I/O interfaces. Circuits are manufactured with P-channel silicon gate technology.

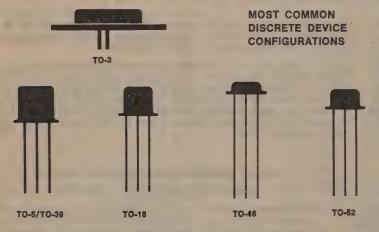


- BCD Serial/ Parallel Processing
 —95 Instructions
 4-Bit Parallel
 Organization
 4-Level Sub-routine Nesting
 12-Bit Instruction,
 32 Codes for.

- 63 Codes for Discrete I/O To 26 Control ROMs, 256x12 Bits Each—total 6656 Instructions
- Instructions
 Up to Seven
 25-digit Storage
 Registers Under
 Access
 Input Encoding up

50-1000





SMALL SIGNAL TRANSISTORS **GENERAL PURPOSE AMPLIFIERS**

			NPN							
Current			TY	PE NUMBERS	3					
Range	Max.			Package Type						
(mA)	Volts	TO-39	TO-18	TO-92	TO	-105	TO-106			
0.1-200 0.01-50 0.01-50 0.1-100 0.1-100 0.1-100	300 60 60 50 160	BF257-59 2N3923 SE7055-56	2N2483-84 2N3946-47	2N5961-63 2N5088-89 2N3903-04 2N5830-33		• • • • • •	SE4020-22 EN3903-04			
0.2-500 0.2-800 0.1-50	300 45 80 300	2N2218-19A 2N3019-20	2N2221-22A 2N3700-01	2N4400-01 MPSA05-06	2N36 2N35					
			PNP							
0.01-50 0.01-50 0.01-100 0.1-100 0.1-100 0.2-500 0.2-800	80 240 40 40 150 60 80	2N4358 2N2904-5A 2N4030-33	2N3962-65 2N4357 2N4034-35 2N3250-51A 2N2906-7A	2N5086-87 2N3905-06 2N5400-01 2N4402-03 MPSA55-56	2N36	88-89 44-45 54-56	2N4248-50 2N4121-22 EN3905-06			
	HIGH SPEED SWITCHES NPN TYPE NUMBERS									
Current Range	Max.			Package Type						
(mA)	Volts	TO-18	TO-46	TO-52	TO-92		TO-106			
0.1-50 0.1-100 10-500	6 15 20	2N709 2N2369A 2N706	2N4449	2N3013-14	2N57 2N57		2N4274-75 2N3646			
			PNP							
0.1-100 0.1-100 1.0-200 10-300	12 15 15 25	2N2894 2N2894A		2N5455-56	2N57	71	2N4257A-8A 2N5055			
, and the second	CORE DRIVERS NPN									
Current	1			TYPE NUM	BERS					
Range		Max.	1 2 4	Package 1	уре					
(mA)		Voits	TO-39	TO-18		TO-92				
50-500 50-800 50-1000		30 60 50	2N3722 2N3724-25	2N2845 2N4013-1	4	21	N5845-45A			

RF/IF (NPN)

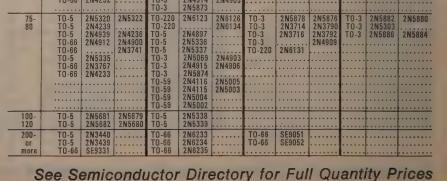
2N3467-68

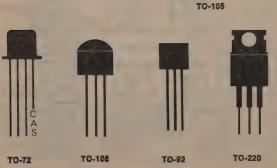
Current									
Range	Max.		Package Type						
(mA)	Volts	TO-39	T0-72	TO-92	TO-106	cation			
U.1-20 4.0-20 2.0-20	20 40 45			PE5010	SE5006	RF & 1st IF AM/FM AM/FM			
0.1-50 0.1-50 0.1-100 0.1-100	15 40 20 30	2N3137	2N918	2N5770 PE5030B	2N3563 2N3564	UHF Osc. 2nd/3rd IF RF Amp. 2nd/3rd IF			

POWER TRANSISTORS

The selection guide (below) is designed to help you put your finger on the Power Transistor you need. Merely go across the row representing your $V_{\rm CEO}(min)$ to the correct $I_{\rm C}(max)$ for your needs. Contact Allied for additional information.

			mation.									
VCEO		3 or less			4-5	I _C (max) Amps	7-10			12-30	
Volts	Pkg.	NPN	PNP	Pkg.	NPN	PNP	Pkg.	NPN	PNP	Pkg.	NPN	PNP
40- 50	TO-5 TO-66 TO-66 TO-5	2N4237 2N4910 2N4231 2N5321	2N4234 2N4898 2N4899 2N5323	TO-3 TO-3 TO-220	2N5067 2N4913 2N6121	2N4901 2N4904 2N6124	TO-3 TO-220	2N6129	2N4907 2N6132	T0-3	2N5301	2N4398
55- 60	TO-5 TO-66 TO-66 TO-5 TO-66 TO-66	2N4238 2N4911 2N5334 2N3766 2N4232	2N4235 2N3740	TO-66 TO-220 TO-5 TO-5 TO-3 TO-3 TO-3	2N3054 2N6122 2N4895 2N4896 2N5068 2N4914 2N5873	2N6125 2N4902 2N4905	TO-3 TO-3 TO-3 TO-3 TO-220	2N5877 2N3713 2N3715 2N6130	2N5875 2M3789 2N3791 2N4908 2N6133	TO-3	2N5881 2N3055 2N5885 2N5302	2N5879 2N5883 2N4399
75- 80	TO-5 TO-5 TO-5 TO-66 TO-66 TO-5 TO-66	2N5320 2N4239 2N4939 2N4912 2N5335 2N3767 2N4233		TO-220 TO-220 TO-5 TO-5 TO-5 TO-3 TO-3 TO-59 TO-59 TO-59	2N6123 2N4897 2N5336 2N5337 2N5069 2N4915 2N5874 2N4116 2N4115 2N5004 2N5002	2N6126 2N6134 2N4903 2N4906 2N5005 2N5003	T0-3 T0-3 T0-3 T0-3 T0-220	2N5878 2N3714 2N3716 2N6131	2N5876 2N3790 2N3792 2N4909	TO-3 TO-3 TO-3	2N5882 2N5303 2N5886	2N5880 2N5884
100- 120	T0-5 T0-5	2N5681 2N5682	2N5679 2N5680	T0-5 T0-5	2N5338 2N5339							
200- or more	TO-5 TO-5 TO-66	2N3440 2N3439 SE9331		TO-66 TO-66 TO-66	2N6233 2N6234 2N6235		TO-66 TO-66	SE9051 SE9052				





TO-66

Transistors and Other Discrete Devices

DISCRETE DEVICES

LARGE SIGNAL AMPLIFIERS AND SWITCHES (NPN, *PNP)

Type No.	Fig.	V(BR) CEO V	hFE min./ max.
2N2714	A B B B A	18	75/225
2N3402		25	75/225
2N3404		50	75/225
2N3405		50	180/540
2N4425		40	180/540
2N3414 2N3415 2N3416 2N3417 2N4424	A A A	25 25 50 50 40	75/225 180/540 75/225 180/540 180/540
TP3638*	AAAA	25	30/—
TP3638*		25	100/—
D29A4*		25	30/90
2N3976		30	55/200

GERMANIUM MADT PNP FOR UHF APPLICATIONS

*Min. Max. ‡Power output, mW BVcBo, 20 V.

		Max.	PG:	=f	NF
Type		(min) (MHz)			(max) (dB)
2N2362		(11112)	1.51	257	
2N2398	12	1200	16-22	* 200	4.5

BVCBO, 40 V. fT, 100 MHz. Cob 8

Type No.	Case TO-	Pd W	hFE= IC- 150mA	VCE (sat)
TQ-59	5	3	100	.2

noise amp

Hi speed switch circuits

TR01 TR05 **TR16**

TR21

TR25

TR28

SILICON PNP SEPT PLANAR SWITCHES, AMPLIFIERS, CHOPPERS

†BVcBo V. TO-46 case.

Type	t	BV ebo	h	rs		
No.	Ľ	V	min	max	mΑ	Ω
2N2946	40	40	30	150	1	45

SILICON SEPT NPN PLANAR EPITAXIAL HI-SPEED

Cob, 8pF. †BVOBO V. TO-5, except *TO-18. ft 250 MHz, except TN's,

Type No.	Pd (W)	†	hfe@ lc- 150mA	Vce sat (max)
2N2218A	0.8	75	40-120	0.3
2N2219	0.8	60	100-300	0.4
TN53	0.8	75	50	0.5
TN59	0.8	40	100	0.4
TN60*	0.5	40	100	0.4

SILICON SEPT NPN PLANAR LOW-LEVEL LOW-NOISE AMPLIFIERS

Cob. 8pF. †BVGBO V.

Туре	Caco		BV-	hFE(@lc	ME	Cob
No.	TO-	H	V	Min.	uА	dB	pF
2N4383	5	40	5	100	10	2	8

HIGH-VOLTAGE INDICATOR DRIVERS (NPN)

Type No.	V(BR) CEO V	hFE min./ max.
2N3877 2N3877A	70 85	20/250 20/250

HIGH-FREQUENCY AMPLIFIER/OSCILLATORS (NPN)

Type No.	hFE min./ max.	V(BR) CEO V	ft MHz min.
2N3856A	100/200	30	140
2N3856	100/200	18	140
2N3843A	20/40	30	60
2N3859	100/200	30	90
2N3860	150/300	30	90
2N3858A	60/120	60	90
2N3859A	100/200	60	90

DIFFERENTIAL AMPLIFIERS (NPN/NPN, *PNP/PNP)

V(BR)DEO, 5 V. Wideband N.F. max., 2 dB. 6 lead case.

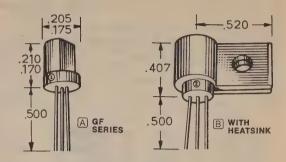
Type No.	V(BR) V CBO V		100uA	nFE1/hFE2 min./max @100uA
TD-100	60	30	120	0.9/1.0
TD-101	60	30	120	0.9/1.0
TD-400*	40	30	120	0.9 1.0
TD-401*	40	30	120	0.9/1.0

DUAL TRANSISTORS

Six-lead case.

Type No.	Structure	V(BR) CBO V	V(BR) CEO V
D-102	NPN/NPN	60	30
ΓD-402	PNP/PNP	40	- 30
TD-602	NPN/PNP	40	30
TD-2219	NPN/NPN	40	30
D-2905	PNP/PNP	60	40

AMPLIFIERS, SWITCHES, DRIVERS AND CHOPPERS FOR A WIDE **VARIETY OF APPLICATIONS**



The listings at left offer a broad selection of amplifiers, switches, drivers, oscillators and choppers to suit many applications. Ideal for military, industrial and commercial equipment that requires high performance characteristics and strict adherence to specifications.

COMPLEMENTARY PAIRS NPN/PNP)

Type No.	V(br) CBO V	V(br) CEO V	V(br) EBO V	hFE (min.) 100 μΑ	Features
TD-600	40	30	5	120	hfe1/hfe2 0.9/1.0
TD-601	40	30	5	120	V off=2mV@1 mA

TYPE DK22 REPLACEMENT TRANSISTOR KIT

The most popular transistors for replacement—designed for the professional service technician. 24-drawer cabinet with labels contains the 22 specially selected types, providing replacement for thousands of

Description Part No. Hi-pwr. audio amp & switching Med. power & hi-gain audio amp & switching Medium power general purpose amp Hi power low leakage amp General-purpose low power, DC to VHF band, hi gain, low

Hi-volt power transistor
General-purpose small-signal NPN, low-noise amplifier
Medium current NPN switch and audio to RF frequency amp

Medium current PNP switch & audio to RF General-purpose NPN small-signal amp from DC to high frequency

foreign and domestic transistors, Full cross-reference data is included with the kit. Shpg. wt. 5 lbs.

Part No.	Description
IRTR52 IRTR53	General-purpose PNP small-signal amp General-purpose NPN large-signal amp and medium speed switching
IRTR54	G.P. PNP switching & amp, DC to VHF
IRTR55	Med. power NPN audio amp & switch
IRTR60	Medium power hi-voltage NPN
IRTR76	NPN silicon hi-pwr. audio amp output
IRTR77	PNP silicon hi-pwr. audio amplifier
IRTR78	Hi-voltage TV video output amplifier
IRTR85	Medium-power hi-gain general-purpose
IRTR87	Audio preamp, driver output, video amp
IRTR92	AF power output
IRTR95	RF amp mixer, oscillator & IF amp

- 22 Specially Selected Transistors
- Meets 90% of All Servicing Needs
- Minimum Inventory-Maximum Coverage



TRANSISTOR APPLICATION SLIDE RULE

ATION SLIDE RULE

COVERS: IF amp AM band; IF amp FM and TV sound carrier; oscillator AM band; AF amp AM band; all-wave and FM band RF amp; AM band converter; all-wave and FM band converter; all-wave and FM oscillator; RF power CB and amateur communication; vertical driver; vertical output; horizontal driver; horizontal output; sync separator and inverter; RF amp and IF amp UHF, VHF and FM bands; audio driver; audio output (high power); audio output (high voltage); audio output (low power); audio output (medium power); audio preamp; video output; video buffer/driver; chroma output; color killer; 1st, 2nd video IF amp; 3rd video IF; AGC keyer/amp; VHF oscillator tuner. lator tuner.



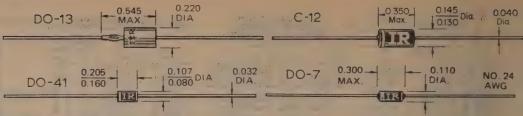
SILICON AND GERMANIUM TRANSISTORS

Stock No.	Type No.	Description	Case		Volt.	Max.	Max. Power
817-9701 817-9703 817-9705 817-9708	TR03 TR05	Hi-power audio amp & switch Hi-power & gain amp & switch Med. pwr. hi-gain amp & sw. Med. pwr. gen. purpose amp	TO-3 TO-36 TO-5 TO-5	50 30 15 20	65 50 25 42	10 A 15 A 200 mA 500 mA	90 W 150 W 200 mW 500 mW
817-9716 817-9717 817-9721 817-9723 817-9724	TR17 TR21 TR23	Hi-power low leakage amp Low pwr. hi-gain, low noise Hi speed switch Hi-voltage power transistor Sm. sig. NPN, low noise amp	TO-3 TO-72 TO-18 TO-66 TO-92	30 20 40 300 40	45 30 75 325 60	3 A 50 mA 800 mA 3 A 200 mA	70 W 200 mW 500 mW 20 W 500 mW
817-9725 817-9727 817-9728 817-9751 817-9752	TR27 TR28 IRTR51		TO-5 TO-3 TO-5 TO-106 TO-106	40 300 40 45 45	60 320 60 60 50	500 mA 10 A 500 mA 100 mA	5 W 56 W 5 W 310 mW 310 mW
		NPN large sig. amp/med. spd. sw. G.P. PNP switch & amp, DC to VHF	TO-106 TO-92	50 35	90 40	300 mA 600 mA	310 mW 310 mW
		Med. pwr. NPN audio amp/sw. Med. pwr. NPN audio amp/sw.		55 70	60 80	3 A 4 A	12.5 W 25 W

Stock No.	Type No.	Description	Case	Min. BV _{CEO}	Volt. BV _{CBC}		Max. Power
		Med. power hi-volt NPN	X-58	275	300	500 mA	20 W
		Sil. hi-pwr. audio amp output	PT66	60	60	4 A	40 W
817-9777		Sil. hi-pwr. audio amp Hi-V TV video out amp	PT66 TO-39	60 300	60 300	4 A 100 mA	40 W 7 W
817-9778		Audio driver, preamp output	TO-1	32	32	500 mA	900 mW
		Audio preamp, dr., video amp	TO-5	20	30	500 mA	500 mW
817-9787	IRTR87	Audio preamp, dr., video amp	TO-5	80	100	1 A	1 W
		AF output for auto receivers	PT-66	70	90	7 A	50 W
		Horizontal output stages	TO-3	1400	1400	5 A	50 W
817-9795	IRTR95	RF amp, mixer, osc., IF amp	TO-104	45	45	50 mA	180 mW
817-9800		Field effect transistor	TO-92	25*	25†	15 mA	200 mW
817-9801		Unijunction transistor	TO-92	30‡	35#	50 mA	300 mW
817-9731		Univer. PNP silicon transistor	U83-1	50	70	200 mA	600 mW
817-9732	TR32	Univ. NPN hi-V audio/video amp	U83-1	150	250	100 mA	600 mW
817-9733		Univ. NPN silicon transistor	TO-98	35	40	100 mA	310 mW
817-9734		Univ. PNP hi-V power germ.	TO-3	350	350	10 A	56 W
817-9735		Univ. PNP hi-pwr. germanium	TO-3	90	90	25 A	106 W
817-9736		Univ. hi-pwr. sil. audio amp	TO-3	100	100	30 A	200 W
817-9737	TR37	Univ. med. pwr. PNP silicon	TO-66	200	150	1 A	20 W

*Vgs (max.). †Vds (max.). ‡VB2E (max.). ‡VB2B1 (max.).

Silicon Zener Diodes



SILICON ZENERS

Silicon Zener Diodes in power ratings from 250 mW to 5 watts; in 5 case styles; with maximum temperature of 175°C or 200°C as indicated. To order, determine the proper Type No. from Selection Chart and find the price located in Semi-conductor Directory.

Maximum temperature, 175°C. Polarity, anode to stud; for cathode-to-stud, add suffix R. §Add suffix A for 10% tolerance, suffix B for 5% tolerance.

Pewer Rating Case Style	10 Wat DO-4		50 Wa	tt§	50 W C14	
Vz	Type	lzt	Type	lzt	Type	Izt
	No.	mA	No.	mA	No.	mA
6.8 7.5 8.2 9.1	1 N 2 9 7 0 1 N 2 9 7 1 1 N 2 9 7 2 1 N 2 9 7 3 1 N 2 9 7 4	370 335 305 275 250	1N3305 1N3306 1N3307 1N3308 1N3309	1850 1700 1500 1370 1200	1 N2804 1 N2805 1 N2806 1 N2807 1 N2806	1850 1700 1500 1370 1200
11	1N2975	230	1N3310	1100	1 N 2 8 0 9	1100
12	1N2976	210	1N3311	1009	1 N 2 8 1 0	1000
13	1N2977	190	1N3312	960	1 N 2 8 1 1	960
14	1N2978	180	1N3313	890	1 N 2 8 1 2	890
15	1N2979	170	1N3314	830	1 N 2 8 1 3	830
16	1N2980	155	1N3315	780	1 N2814	780
17	1N2981	145	1N3316	740	1 N2815	740
18	1N2982	140	1N3317	700	1 N2816	700
19	1N2983	130	1N3318	660	1 N2817	660
20	1N2984	125	1N3319	630	1 N2818	630
22	1N2985	115	1 N 3 3 2 0	570	1 N 2 8 1 9	570
24	1N2986	105	1 N 3 3 2 1	520	1 N 2 8 2 0	520
25	1N2987	100	1 N 3 3 2 2	500	1 N 2 8 2 1	500
27	1N2988	95	1 N 3 3 2 3	460	1 N 2 8 2 2	460
30	1N2989	85	1 N 3 3 2 4	420	1 N 2 6 2 3	420
33	1 N2990	85	1N3325	380	1 N2824	380
36	1 N2991	70	1N3326	350	1 N2825	350
39	1 N2992	65	1N3327	320	1 N2826	320
42	1 N2993	60	1N3328	290	1 N2827	290
45	1 N2894	55	1N3329	280	1 N2828	280
47 50 51 52 56	1N2995 1N2996 1N2997 1N2998 1N2999	55 50 50 50 45	1N3330 1N3331 1N3332 1N3333 1N3334	270 250 245 240 220	1N2829 1N2830 1N2831 1N2832	270 250 245 220
62	1N3009	40	1N3335	200	1N2833	200
68	1N3001	37	1N3336	180	1N2834	180
75	1N3002	33	1N3337	170	1N2835	170
82	1N3003	30	1N3338	150	1N2836	150
91	TN3004	28	1N3339	140	1N2837	140
100 105 110 120 130	1N3005 1N3008 1N3007 1N3008 1N3009	25 25 23 20 19	1N3340	120	192838	120
140 150 160 175 180	1N3010 1N3011 1N3012 1N3013 1N3014	18 17 16 14				

Rating	250 m	w	400 m	W	485 n	W	500 m	W
Max. Temp	200°	С	175°0	1 1	175°	C	. 200°	C
Case Style	DO-1	7	DO-7	7	DO-	7	D0-	7
Vz	Type No.	izt mA	Type No.	izt mA	Type No.	izt mA	Type No.	Izt mA
2.4			1N4370	20			1N5221	20
2.5							1N5222	20
2.7			1N4371	20			1N5223	20
2.8 3.0			1N4372	20				
3.3			1N746	20			1N5226	20
3.6			1N747	20		Ш	1N5220	20
3.9			1N748	20			1N5228	20
4.3		. :	1N749	20			1N5229	20
4.7						·	1N5230	20
5.1			1N751	20			1N5231	20
5.6	1N708	25	1N752	20			1N5232	20
6.0							1N5233	20
6.2 6.8	1N709	25	1N753 1N754	20	1N957	18.5	1N5234	20
	1N/1U	25	1N/54	ZU	1857	10.0	1N5335	20
7.5					1N958	16.5		
8.2			1N756	20				
8.7 9.1	1N713	12	1N757	20	1N960	14.0	1N5239	20
10	1N713	12	1N758	20	1N961	12.5	1N5239	20
11		12	111730	20	116201	12.5	1N5241	20
12	114/13	12	1N759	20	1N963	10.5	1N5241	20
13	3		111733	20	1N964	9.5	1N5242	9.5
14							1N5244	9.0
15	2						1N5245	8.5
16					1N966	7.8		
17								
18					1N967	7.0		
19								
20					1N968	6.2	1N5250	6.2
22		470 070				Į.	1N5251	5.6
24							1N5252	5.2
27							1N5254	4.6
28							1N5255	4.5
30	40000000	34.5	ত ভাই ভাইছিল ভ		1N972	4.2	1N5256	4.2.
33							1N5257	3.8
47			بهممتنية					13.12
51								
100			- 4- 6		1N985	1.3	* * * * * * * * *	

Ratir				Wa			_	Wa	_	Į		W		5 1		
	Temp. 1		_	175°	_		_	75°		1	_	200°	_	-	00°	
Case	Style Do)-13	1	00-1	3		D	0-1	3	I	I	00-4	1	C	-12	
Vz	Type No.	m A		pe o.	izt m A		Typ		lzi m/			/pe o.	lzt mA	Typ No		iz m
	1N3821				•							728		1N53		38
3.6	1N3822 1N3823	64				•				ı	N 4	729 730	69	1N53 1N53	34	35 32
4.3	118302									ił	N4	731	58	1N53	36	29
4.3	1N3825	53								li	N4	732	53	1N53		26
	1N3826	48				•				ľ		733		1N53		24
5.6						٠				H	NA	734	45	1N53		
6.2	1N3828	41	1N1	766	100					ŀ	N4	735	41	1853		20
6.8			1N1	767	100	I	N30	16	37	ľ	N4	736	37	1N53	42	17
7.5			1N1							K		737		1N53		17
8.2			1N1	769	100	Ц	N30	18	31	K	N4	738	31	1N53		15
9.1			1N1	770	50	1 2	N30	19	28	ı	N4	739	28	1N53		15
10			1N1				V30					740		1N53		12
11			1N1				N30		23			741		1N53		12
12			1N1	773	50	H	V30	22	21			742		1N53		10
13						L	43U	23	13	n	NA	743	119	1N53		10
15			1 N 1	775	50	1	V30	24	17	li	N4	744	17	1N53		7
16						Ī	N30	25	15.	5 1	N4	745	15.5			7
17												746	14.0	1N53		1 7
18						ш	W3U	26	14.	U B	N4	146	14.0	1N53		6
20			1N1	778	15	17	V30	27	12.	5 1	N4	747	12.	1N53		6
22			1N1		15	11	V30	28	11.	5 1	N4	748	11.5	1N53	58	5
24			1N1	780	15	11	A30	29	10.	5 1	N4	749	10.5			50
25 27				• • • •		11	N30	30	q	5 1	NA	750	9 5	1N53 1N53	61	5
28										п			-	1N53	62	5
30			1N1				N30		8.	5 1	N4	751 752 753	8.5	1N53		4
33			1N1	783	15		N30		7.	5	N4	752	7.5	1N53	64	4
36							N30		6	H	N/A	754	6.5	1N53		3
43							V30					755		1N53		3
47			1 N 1	787	15		N30			5 1	N4	756	5.5	1N53		2
51							W30		5.1			757	5.0	1N53		2
56						Ш	V30	38	4.	3	N4	758	4.5	1N53		2 2
62						11	V30	39	4.1	0 1	N4	759	4.0	1 N 5 3		2
68						18	V30	40	3.	7 1	N4	760	3.7	1N53		2
75						11	V30	41	3.5	3 1	N4	761	3.3	1N53		2
82 87					1	10	130	42	3.1	1	N4	762	3.0	1N53	/5	1
91						11	¥30	43	2.	B 1	N4	763	2.8	1N53	77	1
100			1N1		5	11	V30	44	2 !	5 1	N4	764	2.5	1N53	78	1
110						18	130	45	2.	3 .						
120			1N1	700	1-		430 430		2.0]].						
150			1 N 1				430 430		1.5	71						
160					H	=	W30	_	1.0							
180			1 N 1	801	5		130		1.4	1						
200						18	V30	51	1.2							

VOLTAGE REFERENCES AND REGULATORS



TEMPERATURE COMPENSATED VOLTAGE REFERENCES

IR Type No.	Case Style	Power Rating mW	Vz V	izt mA	Zz Ohms @lzt	Temp. Coeff. (%/°C)
1 N 3 4 9 6 1 N 3 4 9 7 1 N 3 4 9 8 1 N 8 2 1 1 N 8 2 3	D0-7 D0-7 D0-7 D0-7 D0-7	250 250 250 400 400	5.9-6.5 5.9-6.5 5.9-6.5 5.9-6.5 5.9-6.5	7.5 7.5 7.5 7.5 7.5 7.5	15 15 15 15	0.005 0.002 0.001 0.01 0.005
1N825 1N826 1N429 1N4571° 1N430†	DO-7 DO-7 C-1 DO-7 C-4	400 400 400 400 400	5.9-6.5 6.2-6.9 5.9-6.5 6.4 (±5%) 8.0-8.8	7.5 7.5 7.5 1.0 10.0	15 15 20 100 15	0.002 0.002 0.01 0.005 0.002
1N3154‡ 1N3155‡ 1N3156‡ 1N935# 1N936#	D0-7 D0-7 D0-7 D0-7 D0-7	400 400 400 500 500	8.0-8.8 8.0-8.8 8.0-8.8 8.55-9.45 8.55-9.45	10.0 10.0 10.0 7.5 7.5	15 15 15 20 20	0.01 0.005 0.002 0.01 0.005
1N937# 1N938#	DO-7 DO-7	500 500	8.55-9.45 8.55-9.45	7.5 7.5	20	0.002

DO-41 0.205 | 0.107 DIA DIA DO-7 MAX.

DO-13

ZENER VOLTAGE REGULATORS

For types 1N1313 thru 1N1318, maximum temperature is 150°C. For 250 mW types, add suffix A to Type No. for 5% tolerance.

I OME! II	ating 150 m		230 1114	v .
Maximum Temp.	200	C	200°	C
Case S	tyle C-1		DO-7	
Nominal Vz	Type No.	Izt mA	Type No.	lzt mA
2.6 3.5	1N465	5	1N702 1N703	5 5
4.1 4.8 5.8	1 N467 1 N468	5 5	1 N 7 0 4 1 N 7 0 5 1 N 7 0 6	5 5 5
7.1 8.7 10.5 23.5	1N470 1N1313 1N1314 1N1318	5 0.20 0.20 0.20	1N707	5

* Δ BV temperature range =0° to 75°C; add suffix A for -55° to +25°C, 25° to 150°C. †For 0.001 temperature coefficient, add suffix A. † Δ BV temperature range = -55° to +25°C, 25° to 100°C; add suffix A for -55° to 25°C, 25° to 100°C. # Δ BV temperature range =0° to 75°C; add suffix A for -55° to +25°C, 25° to 100°C; add suffix B for -55° to +25°C, 25° to 150°C.

NOTES

0.110

DIA.

NO. 24

AWG

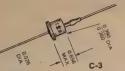
ATTENTION BUYERS

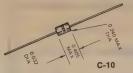
See Semiconductor Directory for a complete listing of stock numbers, descriptions and prices of silicon zener diodes, voltage references, and regulators listed on this page. Allied will supply closer tolerance A or B, whichever is in stock!

0.220

IDIA

0.545 MAX.







0 434 ACROSS FLATS 10-32 UNF 2A



DISCRETE DEVICES

DO-4.

DO-5

Choose from a wide range of silicon power rectifiers, for a variety of industrial or military applications. Available in current ratings from 750 mA to 15 amps, at PRV ratings from 50 to 1000 voits, in seven case styles, stud or lead mounting. *indicates maximum ambient temperature. findicates lead temperature, measured %" from body. #indicates case temperature. \$5 from body. #indicates case temperature. \$5 and types are cathode-to-stud; for anode-to-stud, add suffix R to Type No. (special order only).

SELECTION CHART—SILICON POWER RECTIFIERS

@ Max. Temp.	@ 75°C*	@ 75°C*	0 75°C	0 75°C	0.3 Amps 0.50°C*	2 Amps @ 100°C†	3 Amps @ 125°C†	6 Amps @ 150°C#	12 Amps @ 180°C#	15 Amps @ 150°C#
Ifm (Surge) A	50	40	50	30	40	50	150	150	240	250
Case Style	C-11	C-10	DO-39	DO-41	C-3	C-11	C-11	DO-4	DO-4	DO-5
PRV Volts	Type	Туре	Туре	Туре	Type	Туре	Туре	Type:	Type:	Type:
50 100 200 300 400	5A2	10C4	10D2 10D3 10D4	1N4001 1N4002 1N4003	10B1 10B4	20A05 20A1 20A2 20A3 20A4	30S1 30S2 30S3 30S4	1N1341A 1N1342A 1N1344A 1N1345A 1N1346A	1N1200A 1N1202A 1N1203A 1N1204A	1N3209 1N3210 1N3211 1N3212
500 600 800 1000	5A5 5A6 5A10	1006	10D6 10D10	1N4005 1N4006 1N4007	10B6 10B10	20A5 20A6 20A10	30S5 30S6 30S8 30S10	1N1347A 1N1348A	1N1205A 1N1206A 1N3671A 1N3673A	1N3213 1N3214

LOW POWER MOLDED CIRCUIT ASSEMBLIES

Halfwave, doubler or bridge-type circuits. To Order: Determine Type No. by selecting current rating and case style (Fig. B thru E) from table below, then look down

to find the $V_{\rm RM}$ rating desired. *I_F(AV) current rating at 50°C natural convection, in amps. +I_{FM} (surge) current rating.

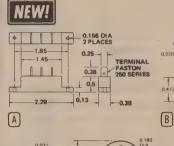
IF (AV) Amps*	1.0	1.8	3.0	10
I _{FM} (surge) Amps†	40	50	70	300
Fig.	В	С	D	E
V _{RM} (rep) V			Mfr's Type Number	
50 100	10DB05P 10DB1P		30DB05T 30DB1T	
200	10DB2P	18DB2A 18DB3A	30DB2T	100PB2P 100PB3P
400 500	10DB3P 10DB4P	18DB4A	30DB3T 30DB4T 30DB5T	100PB4P
600 800		18DB6A	30DB6T 30DB8T	100PB6P
1000		18DB10A	30DB10T	

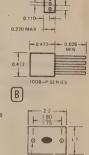
A CENTER TAP CIRCUITS

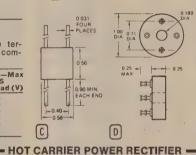
Series 150VC (positive) and 150VJ (negative) center taps rated 15 A. Case temp. 75°C. Max. peak one cycle, non-repetitive surge current (I_{ESM}) of 150 A. Thermal imp.

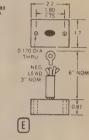
1.0°C/watt (greased). Standard .25" fast-on male terminal imbedded into epoxy. For battery chargers, computer power supplies, battery isolators.

		•				
Stock No.	Positive Centertap	Stock No.	Negative Centertap	VRRM—Max. Rep. Peak Rev. V (V)	Non-rep. Peak	VR(RMS)—Max RMS @ Res. Load (V)
317-9151 317-9152 317-9153 317-9154 317-9156 317-9158	150VC1L 150VC2L 150VC3L 150VC4L 150VC6L 150VC8L	817-9161 817-9162 817-9163 817-9164 817-9166 817-9168	150VJ1L 150VJ2L 150VJ3L 150VJ4L 150VJ6L 150VJ8L	100 200 300 400 600 800	120 240 360 480 720 960	70 140 210 280 420 560









UNIVERSAL QUICK CHARGER RECTIFIER STACK

Selenium stack for battery chargers, Max. AC Input, 33 V

mio-to-mio.	ratingo bassa c	// 10100G 00III	cotton cooming.
Mfr's Type	Output Voits	Output, DC Amps	Size, Inches
BCF60	6-12	30-60	2.44 x 3.94

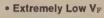




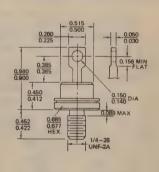
• 50 Amp, 15-20 Volt

Rugged DO-5 Package

For designers using fast recover PN junction diodes, the hot carrier power rectifier is a majority-carrier device which does not have the reverse-recovery characteristics associated with PN junction diodes. This feature is important in high-frequency systems because the hot carrier power rectifier can be used at frequencies in excess of 100 kHz. Metal-to-semiconductor contact rather than the standard PN junction of majority and minority carriers. And by proper choice of the metal-conductor system, the barrier height can be adjusted to give the best compromise between forsystem, the barrier neight can be adjusted to give the best compromise between forward voltage drop and reverse leakage. Designers can make Improvements in the efficiency of high-power, high-frequency dc-to-dc or ac-to-ac low-voltage power supplies. I_F(AV) 50 A. I_{FM}(surge) 800 A.



Excellent Parameter Stability



Stock No.	Mfr's Type	VRM rep V	VRM non-rep V	VR rms V	VR V
817-8507	50HQ015	15	18	10.5	15
817-9777	50HQ020	20	24	14	20

3.0 4.0 1.5 3.0 J14C5 J14C8 .63 4.0 1.5 3.0 1.12 .44 .63 1.5 5.0 3/8-16 36 36 144 144 144 2 4.0 2 1.0 2 1.5 2 3.0 2 1.5 4.0 1.0 1.5 3.0 1.5 J29B8 G J116B04 G J116B1 G J116B5 G J135B1 G 1.12 .44 .44 0-29 10.0 2.63 .75 0-116 0-116 0-116 0-135 3.81 3.81 7.19 .38

A В

MD

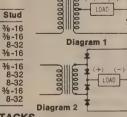
AC V

AC voltage from 36 to 180 volts. *Diagram.

Output

Amps

Type



MINIATURE SELENIUM STACKS

STANDARD SELENIUM RECTIFIER STACKS

Standard selenium rectifier stacks with output ranges from 0-14 to 0-135 volts DC;

MD

Size, Inches

Selenium stacks in half wave or full wave configuration; ideal for replacement use.

HALF WAVE RECTIFIERS

Entertainment power supply replacement rectifiers for AC or DC conversion use

	Max. Max.		Re-	Size Inches	
Mfr's	Input	Output	verse	A	В
Type	V rms	mA	V	(Sq.)	
E075L	130	75	380	0.65	0.75
E150L	130	150	380	1.0	1.0
E650L	130	650	380	2.0	1.25



FULL WAVE RECTIFIER BRIDGES

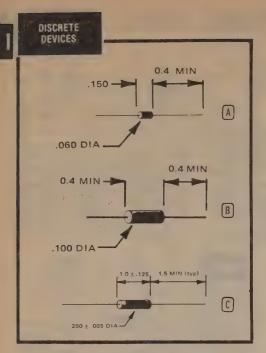
	Max. AC	Max. DC	Re-	Size Re- Inche	
Mfr's Type	Input V rms	Output mA	verse V	A (Sq.)	В
B1B	36	300		1.2	0.81

FUSE-CLIP RECTIFIERS

Half-wave rectifiers in convenient fuse-clip holder. All types have I(AV) rating of 0.5 amps and $I_{\rm FM}$ (surge) rating of 30 amps. $V_{\rm RM}$ (rep.) rating as indicated in table.

Mfr's	VRM (rep.)	Mfr's	VRM (rep.)
Type	Volts	Type	Volts
1 N1081 1 N1082	100 200	1N1084	400





A VA SERIES HIGH VOLTAGE **DIFFUSED SILICON RECTIFIERS**

High voltage diffused silicon rectifiers are designed for industrial and commercial applications requiring high reliability and very small size. Offer high voltage ranges with low leakage current in a compact epoxy encapsulated package. All ratings are obtained without the use of heat sinks or special mounting techniques. Will without 100 declarations with peak acceleration of the control of

Tion of 10G, DC Reverse Current: .05 μ A at PRV at 25°C; 5.0 μ A at PRV at 100°C; fast recovery types .3 μ A and 60 μ A respectively. Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature: .-55°C to +150°C. Suffix "X" in type number indicates fast recovery type with 250 nanosecond maximum $t_{\rm Fr}$ at $t_{\rm F}$ = 2 mA and $t_{\rm F}$ = 4 mA.

Stock No.	Type No.	PRV (V)	l _o @ 40°C (mA)	V _f (V) @ 25°C and I _o
976-3501	VA10	1000	50	4
976-3525	VA25	2500	50	4
976-3610	VA10X	1000	40	6
976-3620	VA20X	2000	40	6

B VB SERIES HIGH VOLTAGE **DIFFUSED SILICON RECTIFIERS**

The VB series is a slightly larger epoxy encapsulated package with higher voltage and current ranges than the VA series (above). All ratings are obtained without the use of heat sinks or special mounting techniques. Will withstand 500G shock, 100 Hz vibration with peak acceleration of 10G. Suffix X in type number indicates fast recovery type with 250 nanosecond maximum $t_{\rm rr}$ at $t_{\rm r}=2$ mA $t_{\rm r}=4$ mA. Type 1N4441 is a fast recovery device. DC Reverse Current: .05 μ A at PRV at 25°C, 5.0 μ A at PRV at 100°C; fast recovery types, 0.3 μ A and 60 μ A respectively. Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature Range: .55°C to +150°C.

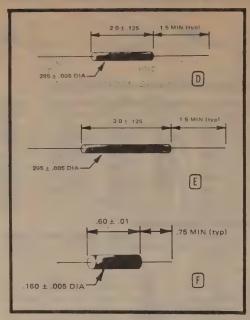
976-1406	VB25	2500	100	5
976-1408	VB30	3000	50	10
976-1412	VB50	5000	50	10
976-1414	VB60	6000	50	10

O VG SERIES HIGH VOLTAGE GENERAL PURPOSE RECTIFIERS

The VG series of rectifiers is designed for industrial and commercial medium current applications requiring high reliability and low cost. High voltage ranges with low leakage current are available in minimum-sized epoxy encapsulated packages. All ratings are obtained without the use of heat sinks or special mounting techniques. Will withstand 500G shock, 100 Hz vibration with peak acceleration of 10G. DC Reverse Current: 1 µA at PRV at 25°C, 40 µA at PRV at 100°C. Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature: —55°C to. +150°C.

Stock	Type	PRV	I _o	V _f
No.	No.	(V)	(mA)	(V)
976-3302	VG2	2,000	100	5
976-3304	VG4	4,000	50	10
976-3305	VG5	5,000	50	12
976-3310	VG10	10,000	25	20

Rectifiers



VF SERIES HIGH VOLTAGE DIFFUSED POWER RECTIFIERS

The VF series of rectifiers is designed for industrial and commercial applications requiring high reliability and performance. High voltage ratings with low leakage current are available in minimum sized epoxy encapsulated packages. All ratings are obtained without the use of heat sinks of special mounting techniques. Will withstand 500G shock, 100 Hz vibration with peak acceleration of 10G, DC Reverse Current: 1 $\mu\rm A$ at PRV at 25°C, 40 $\mu\rm A$ at PRV at 100°C. Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature Range: -55°C to +150°C.

Stock No.	Type No.	1 (mA)	PRV (V)	V r (V)	Fig.
976-2600 976-2620 976-2650 976-2680 976-2686	VF5-5 VF5-10 VF5-20 VF5-40 VF10-5	5 5 5 10	5,000 10,000 20,000 40,000 5,000	12 18 35 50 12	CCDEC
976-2706 976-2708 976-2612 976-2714 976-2720	VF25-7 VF25-10 VF25-15 VF25-20 VF25-40	25 25 25 25 25 25	7,000 10,000 15,000 20,000 40,000	12 18 35 35 50	CCDDE

VX SERIES (FAST RECOVERY)

Same at VF series, but fast recovery type. 250 nsec maximum t_{rr} at $t_f=2$ mA and $l_R=4$ mA. DC Reverse Current: 1μ A at PRV at 25°C, 60 μ A at PRV at 85°C. Ambient Operating Temperature: -55°C to +85°C.

976-2699	VF10-25X	10	25.000	60	D
976-2715	VF25-20X	25	20,000	60	D

F VGX SERIES FAST RECOVERY HIGH VOLTAGE RECTIFIERS

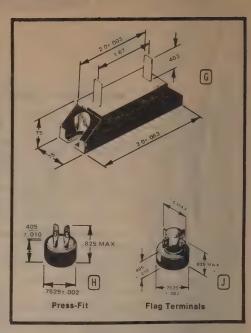
Same as VG series, but fast recovery with 250 nsecmaximum $t_{\rm rr}$ at $t_{\rm f}=2$ mA and $t_{\rm E}=4$ mA. DC Reverse Current: 1 μ A at PRV at 25°C, 60 μ A at PRV at 85°C. Ambient Operating Temperature: -55°C to +85°C.

Stock	Type	PRV	i	V r
No.	No.	(V)	(mA)	(V)
976-3402	VG2X	2,000	50	6
976-3420	VG20X	20,000	5	50

G VC SERIES HIGH VOLTAGE, HIGH CURRENT RECTIFIERS

For industrial and commercial applications requiring high reliability and performance. High voltage ranges with low leakage current are offered in epoxy encapsulated packages. Units have ¼" tin plated brass terminals. DC Reverse Current: 1 μA at PRV at 25°C, 1 mA at PRV at 125°C. Peak Surge Current: 50 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature: -50°C to +125°C. Insulation Strength: terminal to heat sink 10.00 volts minimum. sink, 10,000 volts minimum

976-1510	VC30	3000	2	6
976-1520	VC40	4000	2	8
976-1530	VC50	5000	1.5	10
976-1540	VC60	6000	1.5	. 12
976-1550	VC70 1	7000	1.5	12
976-1560	VC80	8000		14



10 AND 25 AMP INTEGRATED BRIDGE RECTIFIERS

Single phase 10 amp and 25 amp integrated bridge rectifiers feature silicon controlled avalanche characteristics. Controlled avalanche characteristics eliminate the need to buy more expensive, overrated devices to provide adequate protection against voltage transients. Also available in fast recovery types with 200 nanosecond maximum recovery time. All types are available in choice of three mounting options: press-fit (Fig. H), single stud (Fig. K), or TO-3 flange (Fig. L). 10-amp types have standard terminals. Flag terminals (Fig. J) are optional at no extra cost. 25-amp types come with flag terminals only. See Listings on this and facing page.

10 AMP CONTROLLED AVALANCHE INTEGRATED BRIDGE RECTIFIERS

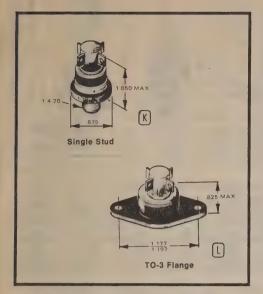
Electrically isolated welded case offers minimum size and maximum mounting ease. 600 watts max. power dissipation in the V_{BR} region for 100 μsec, 4 watts/leg continuous. Average DC Forward Current: 10 A at 100°C case temperature. Peak Surge Current: 100 A, 1 cycle at 60 Hz (non-rep.). Max. Reverse Current: 0.2 mA at Tc = 160°C. Insulation Strength: 2000 VDC minimum, case-to-circuit. Operating/Storage Temperature: -65° to +160°C. Mounting: Suffix /F indicates flag terminals; /F/T indicates TO-3 flange; /F/S indicates single stud.

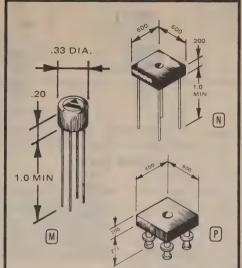
Stock	Туре	Avalanche Volts		Max. Vr	V _{RM}	Max. V _{EM}
No.	No.	Min.	Max.	(RMS)	(wkg)	
976-0200 976-0205 976-0220 976-0210 976-0230	1N4436 1N4436/F 1N4436/F/T 1N4436/F/S 1N4437	250 250 250 250 250 450	500 500 500 500 700	140 140 140 140 280	200 200 200 200 200 400	1.2 1.2 1.2 1.2 1.2
976-0235 976-0250 976-0240 976-0260 976-0280 976-0270	1N4437/F 1N4437/F/T 1N4437/F/S 1N4438 1N4438/F/T 1N4438/F/S	450 450 450 650 650 650	700 700 700 900 900 900	280 280 280 400 400 400	400 400 400 600 600 600	1.2 1.2 1.2 1.2 1.2 1.2

10 AMP FAST RECOVERY INTEGRATED BRIDGE RECTIFIERS

Non-controlled avalanche with 200 nsec maximum recovery time for improved operation in high frequency and low RF interference applications. Average DDC Forward Current: 10 A at 100°C case temp. Peak Surge Current: 75 A, 1 cycle at 60 Hz (non-rep.). Max. Reverse Current: 5 mA at Tc = 150°C. Insulation Strength: 200 VDC min., case-to-circuit. Operating/Storage Temp.: —65° to +150°C. Mounting: Suffix /F/T indicates TO-3 flange; /F/S indicates single stud. All have flag terminals.

Stock No.	Type No.	Max. V _R (RMS)	V _{RM} (wkg)	V _{RM} (non- rep.)	V _{FM} V/leg
976-3051	VR100X/F/T	70	100	120	1.5
976-3050	VR100X/F/S	70	100	120	1.5
976-3100	VR200X/F	140	200	240	1.5
976-3101	VR200X/F/S	140	200	240	1.5
976-3111	VR400/F/S	280	400	480	1.5





BRIDGE RECTIFIERS (CONT'D)

K 25 AMP FAST RECOVERY BRIDGE RECTIFIERS

Non-controlled avalanche with 200 nanosecond maximum recovery time for improved operation in high frequency and low RF interference applications. Average DC Forward Current: 25 amps at 100°C case temperature. Peak Surge Current: 150 amps, 1 cycle at 60 Hz (non-rep.). Maximum Reverse Current: 5 mA at Tc == 100°C, Insulation Strength: case-to-circuit, 2000 VDC minimum. Operating/Storage Temperature: -65°C to +150°C, Terminals: Flag terminals standard. Mounting: single stud.

Stock No.	Type No.	Max. V _R (RMS)	V _{RM} (wkg)	V _{RM} (non- rep.)	V _{FM} V/leg
976-3184	VY100X/S	70	100	120	1.8
976-3187	VY200X/S	140	200	240	

25 AMP CONTROLLED AVALANCHE

25 AMP CONTROLLED AVALANCHE
Electrically isolated welded case offers minimum size
and maximum mounting ease. Provides 1500 watts maximum power dissipation in the V_{ER} region for 100 μsec, 4
watts/leg continuous. Average DC Forward Current: 25
amps at 100°C case temperature. Peak Surge Current:
250 amps, 1 cycle at 60 Hz (non-rep.). Maximum Reverse
Current: 5 mA at Tc = 180°C. Insulation Strength: caseto-circuit, 2000 VDC minimum. Operating/Storage Temperature: —65°C to +180°C. Terminals: Flag terminals
are standard. Mounting: Suffix /T indicates To-3 flange
(Fig. t.); suffix /S indicates single stud (Fig. K); no suffix
in type number indicates press-fit mounting (Fig H).

Stock	Туре		anche Its	Max. V _R	V _{RM}	V _{FM}	
Ho.	No.	Min.	Max.	(RMS)	(wkg)	V/leg	
976-3160	VT200	250	700	140	200	1.5	
976-3162	VT200/T	250	700	140	200	1.5	
976-3161	VT200/S	250	700	140	200	1.5	
976-3170	VT400	450	900	280	400	1.5	
976-3172	VT400/T	450	900	280	400	1.5	
976-3171	VT400/S	450	900	280	400	1.5	
976-3180	VT600	650	1100	400	600	1.5	
976-3182	VT600/T	650	1100	400	600	1.5	
976-3181	VT600/S	650	1100	400	600	1.5	

Minimum size, low-cost epoxy bridge rectifiers for general purpose, low current applications such as power tools, permanent magnet motors, DC supplies and battery chargers. Available in controlled avalanche, non-controlled avalanche, and fast recovery types. Max. Reverse Current: 5 μA at Tc = 40°C; fast recovery types, 10 μA . Operating/Storage Temperature: -50° to $+135^\circ\text{C}$. Suffix TT indicates turret terminals (Fig. P).

NP 6 AMP EPOXY BRIDGE RECTIFIERS

NIP 6 AMP EPOXY BRIDGE RECTIFIERS

VH048, VH148, VH248, VH448, VH648 and VH848 are noncontrolled avalanche types. VH247, VH447, VH647 and
VH847 are controlled avalanche types with 400 watts
max. power dissip. in the VBR region for 100 µsec, 2
watts cont. VH148X, XH248X and VH448X are fast recovery types with 200 nsec max. trr. Peak Surge Current:
25 A max., 1 sec at 60 Hz; 100 A amps max., 1 cycle at
60 Hz (non-rep.); fast recovery types, 20 A and 80 A
respectively. See illustrations shown above.

Stock	Туре			anche olts	Max. Vr	$V_{\rm RM}$	Max. V _{FM}
No.	No.	Fig.	Min.	Max.	(RMS)	(wkg)	V/leg
976-3700	VH048	N			35	50	1.2
976-2850	VH148	N			70	100	1.2
976-2853	VH248	N			140	200	1.2
976-2856 976-2860	VH448 VH648	N			280 420	400 600	1.2
		-					1.2
976-2865 976-2852	VH848 VH247	N	250	700	570 140	800 200	1.2
976-2854	VH447	N	450	900	280	400	1.2
976-2858	VH647	N	650	1100	420	600	1.2
976-2862	VH847	N	850	1100	570	800	1.2
976-3705	VH148X	N			70	100	1.4
976-3710	VH248X	N			140	200	1.4
976-3715	VH448X	N			280	400	1.4
976-3720	VH048/TT	P			35	50	1.2
976-3725	VH148/TT	Р			70	100	1.2
976-3730	VH248/TT	P			140	200	1.2
976-3735	VH448/TT	P			280 420	400 600	1.2
976-3740 976-374 5	VH648/TT VH848/TT	P			570	800	1.2
976-3750	VH247/TT	P	250	700	140	200	1.2
976-3755	VH447/TT	P	450	900	280	400	1.2
976-3760	VH647/TT	P	650	1100	420	600	1.2
976-3765	VH847/TT	P	850	1100	570	800	1.2
976-3770	VH148X/TT				70	100	1.4
976-3775	VH248X/TT	P			140	200	1.4
976-3780	VH448X/TT	Р			280	400	1.4

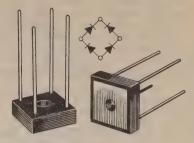
M 1 AMP EPOXY BRIDGE RECTIFIERS

W110, VE08, VE18, VE48, VE68 and VE88 are non-controlled avalanche types, VE27, VE47, VE67 and VE87 are controlled avalanche with 200 W max. power dissip. In VBR region for 100 µsec, 1 W continuous. VE18X and VE28X are fast recovery types with 200 nsec max. tr. Peak Surge Current: 4 A max., 1 sec at 60 Hz; 25 A max., 1 cycle (non-rep.).

Stock No.	Туре	Avala Vo	nche Its	Max.	VRM	Max. V _{FM} V/leg
	No.	Min.	Max.	(RMS)	(wkg)	
976-3200 976-3201	W110 VE08			17 35	25 50	1.2 1.2

Stock	Type	Avalanche Volts		Max.	VRM	Max. V _{FM}
No.	No.	Min.	Max.	(RMS)	(wkg)	V/leg
976-2010 976-2020 976-2050 976-2090	VE18 VE28 VE48 VE68		16	70 140 280 420	100 200 400 600	1.2 1.2 1.2 1.2
976-3805 976-2019 976-2042 976-2074	VE88 VE27 VE47 VE67	250 450 650	700 900 1100	570 140 280 420	800 200 400 600	1.2 1.2 1.2 1.2
976-3810 976-2011 976-2021	VE87 VE18X VE28X	850	1100	570 70 140	800 100 200	1.2 1.5 1.5

NEW! 10-AMP **EPOXY BRIDGE RECTIFIERS**



VJ048, VJ148, VJ248, V448, VJ648 and VJ848 are non-controlled avalanche types. VJ247, VJ447, VJ647 and VJ847 are controlled avalanche types. VJ048X, VJ448X and VJ648X are fast recovery types with 200 nsec max. tr. Peak Surge: 27 A max., 1 sec. at 60 Hz; 75 A max., ½ cycle at 60 Hz (non-rep). Suffix "TT" means turret terminals.

Stock	Туре	Avalanche Volts		Max. Vr	Vrm	Max. Vfm
No.	No.	Min.	Max.	(RMS)	(wkg)	V/leg
976-2900	VJ048			35	50	1.2
976-2901	VJ148	0.0	700	70	100	1.2
976-2902 976-2903	VJ247 VJ248	250	700	140 140	200	1.2
976-2904	VJ447	450	900	280	400	1.2
976-2905	VJ448			280	400	1.2
976-2906	VJ647	650	1100	420	600	1.2
976-2907	VJ648	050	****	420	600	1.2
976-2908 976-2909	VJ847 VJ848	850	1100	570 570	800 800	1.2
976-2920 976-2921	VJ048X VJ148X			35 70	50 100	1.5
976-2923	V1248X			140	200	1.5
976-2924	VJ448X			280	400	1.5
976-2927	VJ648X			428	600	1.5
976-2940	VJ048/TT			35	50	1.2
976-2941	VJ148/TT			70	100	1.2
976-2942	VJ247/TT	250	700	140	200	1.2
976-2943 976-2944	VJ248/TT VJ447/TT	450	900	140 280	200 400	1.2
		450	900			
976-2945	VJ448/TT	CEO	1100	280	400	1.2
976-2946 976-2947	VJ647/TT VJ648/TT	650	1100	420 420	600	1.2
976-2948	VJ847/TT	850	1100	570	800	1.2
976-2949	VJ848/TT	050	1100	570	800	1.2

NP 2 AMP EPOXY BRIDGE RECTIFIERS

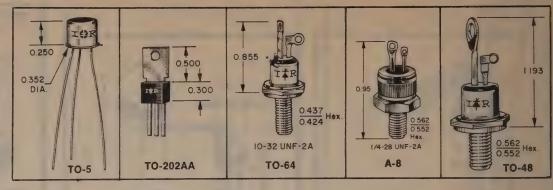
VS048, VS148, VS248, VS448, VS648 and VS848 are non-controlled avalanche types. VS247, VS447, VS647 and VS847 are controlled avalanche types with 300 W max. power dissip. in V_{RR} region for 100 µsec, 1 W cont. VS148X, VS248X and VS448X are fast recovery types with 200 nsec max. t_{rr}. Peak Surge: 8 A max., 1 sec at 60 Hz; 50 A max., 1 cycle (non-rep.); fast recovery types, 6 A and 35 A respectively.

Stock No.	Type No.	Fig.		anche olts Max.	Max. VR (RMS)	V _{RM} (wkg)	Max. V _{FM} V/leg
976-3835 976-0310 976-3131 976-3141 976-3152	VS048 VS148 VS248 VS448 VS648	N N N N			35 70 140 280 420	50 100 200 400 600	1.2 1.2 1.2 1.2 1.2
976-3840 976-3130 976-3140 976-3148 976-3845	VS848 VS247 VS447 VS647 VS847	N N N N	250 450 650 850	700 900 1100 1100	570 140 280 420 570	800 200 400 600 800	1.2 1.2 1.2 1.2 1.2
976-3114 976-3144 976-3153 976-3850 976-3855	VS148X VS248X VS448X VS048/TT VS148/TT	N N P P			70 140 280 35 70	100 200 400 50 100	1.5 1.5 1.5 1.2 1.2
976-3860 976-3865 976-3870 976-3875 976-3880	VS248/TT VS448/TT VS648/TT VS848/TT VS247/TT	PPPP	250	700	140 280 420 570 140	200 400 600 800 200	1.2 1.2 1.2 1.2 1.2
976-3885 976-3890 976-3895 976-3900 976-3905	VS447/TT VS647/TT VS847/TT VS148X/TT VS248X/TT	PPPP	450 650 850	900 1100 1100	280 420 570 70 140	400 600 800 100 200	1.2 1.2 1.2 1.5 1.5
976-3910	VS448X/TT	Р			280	400	1.5

Silicon Controlled Rectifiers

SILICON CONTROLLED RECTIFIERS

Available in a wide range of values and styles. Stud devices are for applications from low voltage power supplies, inverters and choppers, to high power mill drives; available in ranges from 4.7 to 110 amps (to 550 amps on special order). Plastic devices meet the cost and production requirements of the high volume consumer markets. Important Ordering Information: see Selection Charts below to determine current range and case style desired; then locate Type Number opposite PRV rating wanted. See Semiconductor Directory for Stock Nos. and prices.



SELECTION CHARTS

				SELECTION
IT (rms) Amps	1.6	1.6	1.6	4.0
IT (AV) Amps†	1.0 @80°C	1,0 @80°C	1.0 @85°C	2.55 @30°C
Max. IGT mA@ 25°C	10°	2*	0.2*	0.2*
dv/dt (V/μsec)	20 typ.	20 typ.	20 typ.	8 min.
Case	TO-5	TO-5	TO-5	TO-202AA‡
PRV		Mfr's T	ype Number	
15 V 25 V 30 V 50 V 100 V	2N1595 2N1596	2N1595A 2N1596A	2N2322 2N2323 2N2324	IR106Q1 IR106Y1 IR106F1 IR106A1
150 V 200 V 250 V 300 V 400 V	2N1597	2N1597A		IR106B1 IR106C1 IR106D1
*Current drawn	by 1000 ohm	shunt resis	stor not inclu	ded in maximum

*Current drawn by 1000 ohm shunt resistor not included in maximum IGT rating. †Current rating at maximum Tcase indicated. ‡Other bent and modified pin and tab configurations available on special order.

CHARIS						
IT (rms) Amps	7.4	8.0	16	25	25	25
IT (AV) Amps	4.7 @105°C	5.1 @85°C	10 @80°C	16 @95°C	16 @95°C	16 @45°C
Max. IGT mA@25°C	10	25	30	25	9	30
dv/dt (V/μsec)	20 typ.	50 min.	20 typ.	20 typ.	20 typ.	10 min.
Case	TO-64	SP-10	TO-48	A-8	A-8	TO-48

PRV		Mfr's Type Number					
25 V 50 V 100 V 150 V 200 V	2N1772A 2N1773A 2N1774A	IR122B	2N1846A	iR30B	*** * * * * * * * * * * * * * * * * * *	10RC20A	
250 V 300 V 400 V 500 V 600 V	2N1775A 2N1776A 2N1777A 2N1778A 2N2619A	IR122C IR122D	2N1847A 2N1848A 2N1849A		IR31D		

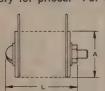
*Indicates minimum, †Typical. ‡at 25°C.

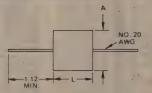
iT (rms) A	25	35	63
IT (AV) A @ Max. T Case	16@ 65°C	22.3 @ 35°C	40 @ 87°C
Max. IGT mA‡	30	30	110
dv/dt (V/μs)*	20†	10	20†
Case	TO-48	TO-48	TO-65
PRV		Mfr's Type Number	1
25 V 50 V 100 V 150 V 200 V 250 V 300 V 400 V 500 600 1000	2N681 2N682 2N683 2N684 2N687 2N688 2N689 2N689	16RC10A 16RC30A 16RC40A 16RC50A	40RCS10 40RCS20 40RCS30

PLEASE REFER
TO SEMICONDUCTOR
DIRECTORY FOR
STOCK NUMBERS
AND PRICES

KLIP-SELS (AC TYPES)

To Order: select current rating and configuration desired from table, then locate Mfr's Type No. opposite voltage rating. See Semiconductor Directory for prices. *For individual rectifier. †Maximum.





			Thru 3 Amp*	Thru 16 Amp*	Thru 60 Amp*
Volt-		Max. Clamp	Peak = 0.25A	Peak=1.0A	Peak = 3.0A
age	Max.	V @	A .57" dia.†	A .70" dia.	B 1' sq.
Rat- ing	(rms)	Peak Curr.	Mfr's "L" Type Max. Inch	Mfr's "L" Type Max. Inch	Mfr's ''L'' Type (±.06) Inch
50 100 150	26 52 78	70 140 210		KZ1DPF 0.63 KZ2DPF 0.63	KSA1DAF 1.37 KSA2DAF 1.50
200 250 300	104 130 156	280 350 420	KY5DPF 0.63 KY6DPF 0.88	KZ4DPF 0.63 KZ5DPF 0.63 KZ6DPF 0.88	KSA5DAF 1.87
500 550 600	234 260 286	630 700 770	KY11DPF 0.88	KZ10DPF 0.88 KZ11DPF 0.88	KSA9DBF 2.34 KSA10DBF 2.46
800 1200	364 520	980 1400			

PACE/PAK POWER INTEGRATED CIRCUITS

A 10 AMP PACE/PAK

SCRs and diodes in a single assembled package, except power handling capability significantly higher. Where most ICs are low milliamp range, the Pace/Pak begins at 10 amps and continues to 42.5 amps. For battery chargers, low current power supplies, air conditioning, heating, light dimming, AC and DC motors. Passivated silicon chips solder bonded to

highly thermal conductive ceramic Insulator (substrate) which is solder bonded to copper or aluminum base. 10 Amp: Replaces 16 or 4 A SCRs; 10 or 3 A diodes. 25 Amp: Replaces 16 A SCRs; 12 or 16 A diodes. 42.5 Amp: Replaces 35 or 40 A SCRs; 20 or 40 A diodes.

Stock No.	Mfr's	AVCrms	Stock	Mfr's	ACVrms		
	Type	Imput	No.	Type	imput		
817-8822	PH-401	120	817-8836	PH-432	230		
817-8824	PH-402	230	817-8838	PH-441	120		
817-8826	PH-411	120	817-8840	PH-442	230		
817-8828	PH-412	230	817-8842	PH-451	120		
817-8830	PH-421	120	817-8844	PH-452	230		
817-8832	PH-422	230	817-8846	PH-481	120		
817-8834	PH-431	120	817-8848	PH-482	230		

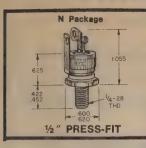
Stock	Mfr's	AVCrms	Stock	Mfr's	ACVrms
No.	Type	Imput	No.	Type	Imput
817-8976	P-101	120	817-8986	P-131	120
817-8977	P-102	230	817-8988	P-132	230
817-8978	P-111	120	817-8990	P-141	120
817-8970	P-112	230	817-8992	P-142	230
817-8982	P-121	120	817-8994	P-151	120
817-8984	P-122	230	817-8996	P-152	230

B 25 AMP PACE/PAK

42.5 AMP PAGE/PAR						
Stock No.	Mfr's Type	AVCrms Imput	Stock No.	Mfr's Type	ACVrms Imput	
817-8998 817-9000 817-9002 817-9004	P-201 P-202 P-211 P-212	120 230 120 230	817-9010 817-9012 817-9014	P-231 P-232 P-241	120 230 120	
817-9006 817-9008	P-221 P-222	120 230	817-9016 817-9018 817-9020	P-242 P-251 P-252	230 120 230	

Silicon Controlled Rectifiers and Triacs













POWER THYRISTOR SCR'S

Half-wave unidirectional gate-controlled rectifiers (SCR-thyristor) with 0.8 or 1.6 amp current rating, 30 to 400 volts, in thermopak/thermotab (isolated) or TO-5 metal can package. Heavily glass passivated device junctions insure high reliability and continuous parameter stability. Since all chips are glass hermetically sealed, they require no special handling or packaging. Heavy glass protection offers a rugged, reliable barrier against junction contamination.

SENSITIVE GATE SCR'S

Half-wave unidirectional gate-controlled rectifiers (SCR-thyristor) with current ratings from 6 to 35 amps, 30 to 600 volts; with gate sensitivities from 1-15 mA to 1-25 mA. Available in choice of six different packages, three of these with electrically isolated construction with case or tab internally isolated. Sensitive SCR's are PNPN gate triggered bi-stable switching devices, featuring high gate sensitivity and low holding current for low level switching. Excellent characteristics for feedback controls, temperature and humidity controls, and static switching. Heavily glass passivated device functions provide long-term reliability and parameter stability. Optional built-in triggering diode (diac) offers increased circuit reliability with reduced component and circuit assembly costs.

0.6	AMP	SENSI	TIVE	SCR'S
On-S	Maximum On-State Curr., A		Max.	Thermopak Thermotab (Isolated)
IT(rms)	IT(avg)	V	μA	Type No.
0.8 0.8	0.5 0.5	50 208	50 1500	S0500KS1 S2000KS3

FOR PRICES PLEASE SEE SEMICONDUCTOR DIRECTORY

1.0 AMP SERSITIVE SON S						
Maximum VDROM On-State and Max Curr., A VRROM Igt		Thermopak/ Thermotab (Isolated)	TO-5 Metal Can			
IT IT		μA	Type No.	Type No.		
1.6 1. 1.6 1. 1.6 1. 1.6 1.	50	200 50 50 200	S0301LS2-EC106Y2 S0501LS1 S1001LS1	S1001MS2		
1.6 1. 1.6 1. 1.6 1. 1.6 1.	0 200	50 200 50 200	\$2001LS1 \$4001LS1 \$4001LS2-EC106D2	\$2001MS1 \$2001MS2		

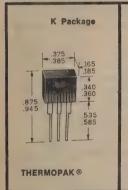
1 6 AMP SENSITIVE SCR'S

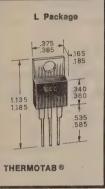
6, 8, 10 AND 15 AMP POWER GATE SCR'S

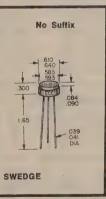
	imum State	VDROM and	lg m		Thermo-	%" Hex Stud	½" Press-	½" Press-
Cur	r., A	VRROM	Min	Typ.	(Isol.)	(Isol.)	Fit	Fit Stud
IT(rms)	IT(avg)	V	Max.		Type No.	Type No.	Type No.	Type No.
6 6 6	3.8 3.8 3.8 3.8 3.8	30 50 100 200 400	1-15 1-15 1-15 1-15 1-15	2.5 2.5 2.5 2.5 2.5 2.5	S0306L			\$0506H \$1006H \$2006H \$4006H
8 10 10	5.4 5.4 6.35 6.35 6.35	200 400 30 50 100	1-15 1-15 1-15 1-15 1-15	2.5 2.5 2.5 2.5 2.5 2.5	S4008L S0310L	S0310B	S2008G	\$2008H \$4008H \$0310H \$0510H \$1010H
10 10 15 15	6.35 6.35 9.5 9.5 9.5	200 400 30 50 100	1-15 1-15 1-20 1-20 1-20	2.5 2.5 3 3	S0315L S0515L S1015L		S4010G	\$2010H \$4010H \$0315H \$0515H \$1015H
15 15 18	9.5 9.5 9.5	200 400 600	1-20 1-20 1-20	3 3 3	S2015L S6015L			S2015H S4015H

25 AND 35 AMP POWER GATE SCR'S

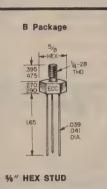
On-5	mum tate	VDROM and	lg:		½" Press- Fit	½" Press-	Press-	¾" Press- Fit Stud
(Trees)	IT(avg)	VRROM	Min	Тур.	Type No.	Fit Stud	Fit TO-3	(Isol.) Type No.
25 25	15.8 15.8	400 600	1-25	4 4	S4025G		S4025C	S4025D S6025D
35	22	400	1-25	8		S4035H	S4035C	300235











50 50

Stock

LOGIC TRIACS (SENSITIVE GATE)

Logic triacs are bilateral thyristor semiconductors with sensitive gate characteristics in all quadrants. Interface directly with bipolar or MOS integrated circuits without the need for buffers, etc. to boost or amplify the output signal. Available in metal can TO-5, Thermopak, Thermotab (isolated). Heavily glass passivated device junctions insure long term reliability and parameter stability. Indicates device with built-in Trigged Diac. † DC gate-trigger current, Quadrants I and III.

Min.

(V)

lgt (mA†)

25 25

25

50 50

ISOL.) TRIAC

molded pack-

200 50

GT-40 BILATERAL TRIGGER

I.O AMP (FR	EE-MIN) INET	IMOTAD (18	OLAILD)	INIAC
Stock No.	Type No.	Max. Ir(rms) (A)	Min. VDROM (V)	Max. Igt (mA†)
779-6036	Q2001L3	1.6	200	10
1.6 AM	P PLASTIC TO	-5 (ISOLAT	ED) TRIA	C
779-6058	Q4001P3	1.6	400	10
1.6 AMP M	ETAL CAN TO	-5 (NON-IS	OLATED)	
770 0000	0.4004340	1.0	400	10

779-6052	Q4001M3	1.6	400	10				
3 AMP THERMOTAB (ISOLATED) TRIAC								
779-6060	Q2003L3	3	200	10				
779-6063	Q4003L3	3	400	10				
779-6061	Q2003L4	3	200	25				
779-6064	Q4003L4	3	400	25				
779-6065	Q4003LT	3	400	*				
3 AMP MODIFIED PLASTIC TO-5 (ISOLATED) TRIAC								

	O PART MICELL	ILD I MOII	0 10-0 (10	O	
	779-6068	Q4003P	3	400	25
4	AMP SWEDG	E TO-3 AND	%" HEX ST	UD (ISOL.)	TRIA
	779 5076	DARGA	A	400	50

4 AMP	THERMOTAB	(ISOLATE	D) TRIAC	
79-6100 79-6102	Q2004L4 Q4004L4	4	200 400	2 2

DIAC SPECIFICATIONS	
Temperature Ranges	
Storage	40° to +110°C
Operating (Junction) .	
Current Ranges: 1.5 to	

6 AMP SWEDGE TRIAC Min Max. IT(rms) VDROM (V) lgt (mA†) Stock (A) 779-6119 Q4006T 6 AMP THERMOTAB (ISOLATED) TRIAC 779-6140 779-6141 779-6142 779-6148 Q2006L4 Q2006LT Q4006L4 200 200 400 600 25 25 25 Q8006L4 8 AMP SWEDGE TRIAC 779-6150 779-6153 779-6156 50 02008 50 8.5 AMP THERMOTAB (ISOLATED) TRIAC 779-6180 779-6181 779-6182 25 Q2008L4 25 04008LT 25 AMP ¾" PRESS-FIT, TO-3, STUD TRIAC Triggered units not available in ¾" press fit.

No.	No.	(A)	(V)
779-6190	Q2010L4	10	200
779-6191	Q2010LT	10	200
779-6192	Q4010L4	10	400
779-6193	Q4010LT	10	400
779-6196	Q6010L4	10	600
10A SWEDGE	TO-3 AND 5	" HEX ST	UD (ISC
779-6200	02010	10	200
779-6207	0.4010	10	400
779-6223	O6010T	10	600
	15 AMP	SWEDGE	
Triggered unit	s not availabl	e in stand	ard mo
age.			
779-6233	Q2015	15	200
779-6236	Q2015T	15	200
779-6239	Q4015	15	400

779-6236 779-6239	Q2015T Q4015	15 15	200 400	50
15 AM	P THERMOTAL	B (ISOLATE	D) TRIAC	
779-6263 779-6265 779-6266 779-6268	02015L4 02015L4 04015LT 05015LT	15 15 15 15	200 400 400 500	50 50

10 AMP THERMOTAB (ISOLATED) TRIAC

IT(rms)

40 Friggered unit	AMP ¾" PF s not available			
779-6288	Q2040	40	200	100
779-6289	Q4040	40	400	100
779-6292	Q8040	40	800	100

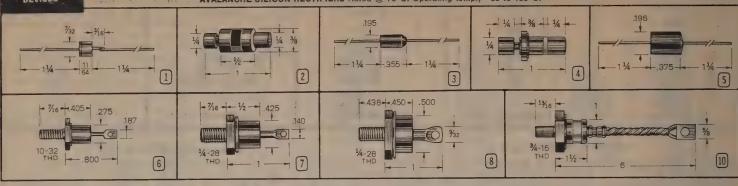
779-6273 779-6274

Q2025 Q4025

DISCRETE DEVICES

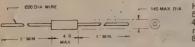
Avalanche Silicon Rectifiers, Assemblies, SCR'S

AVALANCHE SILICON RECTIFIERS Rated @ 70°C. Operating temp., -55 to 150°C.



IR A	mps	1	1	1	1	2	3	6	12	25	35	250
	e Amps	60	60	60	. 60	100	125	150	260	400	500	5000
	Case	1	2	1	3	4	5	6	8	7	8	10
VR Peak Volts	VF	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE	MFRS. TYPE
100 200 300 400	70 140 210		20M/IN1082	E2/IN4003	F2/IN2482	10LA/IN1085A 20LA/IN1086A	3BF2/IN5402	20H3P/IN3570	ST220P/IN1200A	ST3A20P/IN2154	ST420P/IN1183A	ST920P/IN37360
400 600 800 1000	280 420 560 700	40C/IN2613 60C/IN2614	40M/IN1084 60M/	E4/IN4004 E6/IN4005 E8/IN4006 E10/IN4007	F4/IN2483 F6/IN2484 F8/ F10/				ST260P/IN1205A		ST460P/IN1190A	

HIGH VOLTAGE SILICON RECTIFIERS



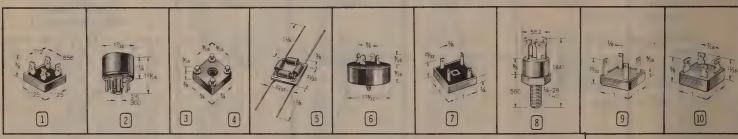
HVC Series: I_r @ PIV 10 μ A @ 25°C, 100 μ A @ 100°C, Io @ 55°C. Others: I_r @ PIV 1 μ A @ 25°C, 5 μ A @ 100°C, Io @ 40°C. Max. operating temp., 150°C. *Fast recovery types: recovery time 250 nsec, I_r @ PIV 1 μ A @ 25°C, 100 μ A @ 85°C.

Stock No.	Mfr's Type	PIV	Vf @lo	Max Is(iHz)	IoMA	Length "A"	Diam "B"
916-5202	3CFS20	2000	3	30	300	.205	.107
916-4102	HVC240	2400	5	25	250	11/16	.375
916-5203	3CFS30	3000	3	30	300	.205	.107
916-5405	10BFS50	5000	10	14	110	.420	.145
916-4105	HVC500	5000	10	20	200	1.00	.375
916-4111	HVC1000	10000	20	8	45	.563	.187
916-5427	20AFS100	10000	20	8	45	.563	.187

Stock No.	Mfr's Type*	PIV	Vf @lo	Max ls(lHz)	IoMA	Length .	Diam "B"
916-4112 916-5433 916-4113 916-6016	HVC1200 25DFS120 HVC1500 45EFS150	12000 12000 15000 15000	25 25 25 45	6 10 6	30 30 75 30	1.010 1.010 2-5/16 2.010	.187 .187 .375 .312
916-6026 916-6027 916-5101	70GFS300 70GFS400 3CFR10	30000 40000 1000	70 70 3	- 6 6 20	30 30 200	3.010 3.010 205	.312 .312 .107

ZENER VOLTAGE REGULATORS

Stock No.	Туре	Test Current (ma)	Dyn. Imp. (ohms)	Stock No.	Type	Test Current (ma)	Dyn. imp. (ohms)
916-4301	VR6A	25	4	916-4320	VR20	12	20
916-4303	VR7	25	5	916-4321	VR20A	12	20
916-4304	VR7A	25	5	916-4323	VR24 .	4	28
916-4309	VR10	12	8	916-4324	VR24A	4	28
916-4310	VR10A	12	8	916-4326	VR28	4	42
916-4312	VR12	12	10	916-4327	VR28A	4	42
916-4313	VR12A	12	10	916-4332	VR39	4	70
916-4314	VR14	12	11	916-4335	VR47	- 4	98
916-4315	VR14A	12	11	916-4337	VR56	- 4	140
916-4317	VR18	12	17	916-4340	VR67	2	200
916-4318	VR18A	12	17	916-4341	VR67A	2	200



				SINGL	E PHASE,	FULL-WA	VE BRIDGE	ASSEMB	LIES		,		Sgl. ϕ Pos. C.T.	Sgl. ϕ Neg. C.T.
Max A	Amps	2	2	2.5	4 .	6	6	12	15	25	30	3	2	2
Is Max	Amps	120	120	120	125	300	125	250	240	350	41	30	60	60
Case	Style	3	4	5	2	6	7	8	9	10		1	11	11
Max	Max RMS						MANU	FACTURE	R'S TYPES					
50 100 200 400 600 800	35 70 140 280 420 560	S6211 S6211-1 S6211-2	\$6230 \$6230-1 \$6230-2 \$6230-3	S5959 S5959-1 S5959-2	XP329-2 XP329-4 XP329-6	S6121-1 S6121-3	S6327-1 S6327-2 S6327-4	S6240-2 S6240-4 S6240-6 S6240-8	\$6320-1 \$6320-2 \$6320-4 \$6320-6	\$6314-1 \$6314-2 \$6314-4 \$6314-6 \$6314-8	. \$6458-05 \$6458-1 \$6458-2 \$6458-4 \$6458-6 \$6458-8	\$6464-05 \$6464-1 \$6464-2 \$6464-4 \$6464-6 \$6464-8	S6337P-1 S6337P-2 S6337P-6	



BR-6



.312--

Contain the equivalent of two 20 am series SCRs in an aluminum case of					issipation thro A max. Specs		
Mfr's Type	20 CRBR-05	20 CRBR-1	20 CRBR-2	20 CRBR-3	20 CRBR-4	20 CRBR-5	20 CR
Max. PIV—V80, operating (volts)	50	100	200	300	400	500	600
Max. RMS voltage (volts)	35	70	140	210	280	350	420
Mac. DC current (amps) full cycle cond.			. 1	20			
Max. voltage drop (ea. diode section V @ 10A)	£	t		1.0			
Peak "on" voltage @ 50A pk. (ea. SCR section) volts				. 2			
Max. case temperature, operating & storage		1		125° C			
Max. one cycle surge current (peak amps)				250			
Reverse blocking leakage, F.C.A.	n , .			3.0 MA			
Fwd. blocking leakage, full bridge, F.C.A.		. , .	3 MA	Typical—6 M	A Max.		

SCR HALF BRIDGE ASSEMBLIES FOR CONTROL APPLICATIONS

1% (0.2°C) INTERCHANGEABLE THERMISTORS (-80° to +150°C)

1% (0.2°C) INTERCING 18 (0.2°C) INTERCING 18 (0.2°C) INTERCING 18 (0.2°C) INTERCING 18 (0.2°C) at 25°C. Time constant: 1 sec. max. in well stirred oil, 10 sec. max. in still air. Diss. constant: 8 mW°C in oil, 1 mW/°C in still air. Epoxy encapsulated. Size, Fig. 1. ¼ oz.

		•			
Stock No.	Mfr's Type	Base Res. Ohms@25°C	Stock No.	Mfr's Type	Base Res. Ohms@25°C
997-2400	44001	100	997-2406	44007	5000
997-2401	44002	300	997-2407	44008	30K
997-2402	44003	1000	997-2410	44011	100K
997-2403	44004	2251	997-2414	44014	300K
997-2404	44005	3000	997-2415	44015	1 meg
997-2405	44006	10K			
Each: 1-9	7.6	3 10-29	6.10	30-U	p3.85

HIGH ACCURACY LINEAR OUTPUT THERMOLINEAR THERMISTOR NETWORKS

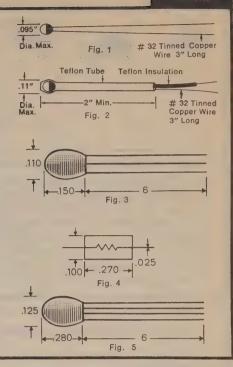
Stock	Manufacturer's	Range		EACH	
No.	Type		. 1-9	10-29	30-Up
	44212 Component			20.65	19.15
997-2420	44020 Composite	-50° to +50°C	21.29	16.95	15.75

Type 44212 is a linear temperature transducer for -50°C to +50°C. Uses three thermistors in composite (Fig. 5) and three resistors as in Fig 4. Interchangeability less than 0.25°C over entire range.

TEFLON ENCASED 1% (0.2°C) INTERCHANGEABLE THERMISTOR PROBE

Stock No.	Mfr's Type	Base Res. Ohms@25°C	Stock No.	Mfr's Type	Base Res. Ohms@25°C
997-2700 997-2701 997-2702 997-2704 997-2705	44101 44102 44103 44104 44105	100 300 1000 2252 3000	997-2706 997-2710 997-2714 997-2717	44106 44108 44111 44114	10K 30K 100K 300K
Each: 1-9	12.4	4 10-29.	9.80	30-Up	8.50

1% thermistors encased in chemically impervious Teflon tubes for convenient use as temperature probes in variety of applications. Interchangeability same as 1% thermistors above. Probes can be used straight or bent. Leads insulated from each other by smaller Teflon tube around one lead (Fig. 2). Time const.: 2.5 sec. max. in well stirred oil, 10 sec. max. in still air. Av. wt. 2 oz.



1/2 % (0.1°C) INTERCHANGEABLE THERMISTORS

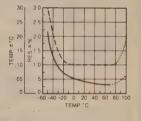
These precision thermistors offer 1/2% interchangeability, so each thermistor in a given value will match standard temperature-resistance curves and each other with maximum error of only $\pm 0.1^{\circ}\mathrm{C}$ at $25^{\circ}\mathrm{C}$. Dermits multiple monitoring from a single circuit, and direct dialing of temperature set points.

Stock	Mfr's	Base Res.		EACH	
No.	Type	Ohms@25°C	1-9	10-29	30-Up
997-2440 997-2441 997-2442 997-2443 997-2444	44030 44031 44032 44033 44034	3000 10K 30K 2252 5000	12.02 12.02 12.02 12.02 12.02	9.80 9.80 9.80 9.80 9.80	8.50 8.50 8.50 8.50 8.50

Eliminates the need to recalibrate circuits when switching transducers. Time constant for thermistors suspended by their leads in well stirred oil is 1 second max; 10 seconds max. in still air. Dissipation constant in well stirred oil is 8mW/°C and 1 mW/°C min. in still air. Finished thermistors are chemically stable and not significantly affected by aging or exposure to strong fields of hard nuclear radiation. Send for test data, NBS measurements and MIL spec statements. Dimensions shown in Figure 1 (above). Epoxy encapsulated; color coded. Values may be assorted at the quantity price. Wt. 1/4 oz. Eliminates the need to recalibrate circuits



 Resistance ± % ---- Temperature ±°C



LINEAR OUTPUT THERMILINEAR® THERMISTOR NETWORKS

Linear networks consist of two thermistors packaged together and used in conjunction with two precision resistors to produce a varying voltage or resistance linear with temperature change. Voltage can be made to correspond directly to temperature, correct even as to sign; thus +376.2 mV equals +37.62°C, etc. These devices are useful in applications requiring accurate linear information. Linearity deviations are as little as 2 parts in 1000 from 0 to 100°C, with sensitivities, of 20 mV/°C or more, 400 times that of an IC thermocouple. Time constant in well stirred oil is 1 second. Accuracy and interchangeability between sensors is ±0.15°C from -30° to +100°C (except type 44211, ±0.4°C from 0 to +85°C and ±0.8°C from 0 to +55°C; and type 44212, ±0.1°C from -50° to +50°C). A Thermilinear component includes a thermistor composite (Fig. 3) and two resistors of the size shown in Fig. 4 (above). Linear networks consist of two thermistors packaged

The thermistor and resistor composites are connected in networks as shown in Figures A thru D. One of the basic networks is a voltage divider as in Fig. A for components other than 44212, and as in Fig. B for Type 44212. (The area within the dotted line represents the thermistor composite. The network for linear resistance versus temperature is shown in Fig. C for components other than 44212,*Additional Type 44018 and 44212. composites may be ordered separately. Av. shog. wt. 1 oz. and 44212. comp. Av. shpg. wt. 1 oz

Following is a description of why these networks produce linear information. The equation for a voltage divider network, with R and R_0 in series, is:

$$\mathsf{Eout} = \mathsf{Ein} \, \frac{\mathsf{R}}{\mathsf{R} - \mathsf{R}_0}$$

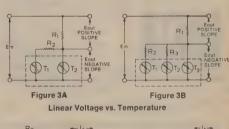
where Eout is the voltage drop across R. If R is a thermistor, the Eout is plotted versus temperature, and the total curve will be essentially non-linear and of a general "S" shape with linear or nearly linear portions near the ends and in the center. If R is modified by the addition of other thermistors and resistors, linearity of the center section of the curve can be extended to cover a wide temperature range. This section follows the general equation for a straight line, Y = mx+b, or in terms of a Thermilinear component: linear component:

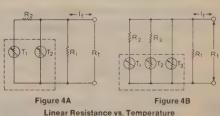
For Voltage Mode Eout == ±MT+b where: M is slope in volts/°T

T is temperature in °C or °F b is value of Eout when T = 0°

For Resistance Mode Rt = MT+b where: M is slope in ohms/°T T is temperature in °C or °F

b is value of R in ohms when T = 0°





0. 1			Linearity		Resistance		EACH	
Stock No.	Mfr's Type	Range	Deviation	Eo Positive Slope	Mode, Rt=	1-9	10-29	30-Up
997-3000 997-3001 997-3002 997-3003 997-3010 997-2417 997-3012	44201 44202 44203 44204 44211 44018* 44212*	0° to +100°C -5° to +45°C -30° to +50°C +30° to +100°F -55° to +85°C -30°C to +100°C -56° to +50°C	±0.216°C ±0.065°C ±0.16°C ±0.055°F ±1.1°C ±0.15°C ±0.15°C	-Eout = (+0.0053483 Ein) T+0.13493 Ein Eout = (+0.0056846 Ein) T+0.194142 Ein Eout = (+0.0067966 Ein) T+0.38833 Ein Eout = (+0.0031289 Ein) T+0.38833 Ein Eout = (+0.005033 Ein) T+0.34407 Ein Eout = (+0.00559149 Ein) T+0.40700 Ein Eout = (+0.00559149 Ein) T+0.40700 Ein	(-17.115)T +2768.23 (-32.402T +4593.39 (-127.096)T +12175 (-17.834)T +5173.8 (-17.74)T +2312) (-129.163)T +13698.23 (-129.163)T +13698.23	13.28 13.28 13.28 13.28 13.28 13.63 25.30	10.80 10.80 10.80 10.80 10.80 10.90 20.65	9.90 9.90 9.90 9.90 9.90 6.95

^(†) Worst case deviation, with the ±0.1% resistors supplied.

Thermistors



High-reliability, precision thermal resistors with high negative coefficient of resistance. As temperature increases, resistance goes down. Use glass coated beads for compact size, fast response, and where temperatures go to 600°. Medium-small glass probes are similar to beads, but are more rugged, mount more easily and are useful in liquid media. Discs are useful for medium power and time response applications. Rods and washers are used where high power dissipation is required. Discs, washers and rods for temperatures to —150°C. Av. shpg. wt. 2 oz.

THERMISTOR ENGINEERING PACKAGE



THERMISTOR "COMPUTER"

A handy 5 x 8" "Computer" reduces lengthy computations to a single, slide-rule setting. Gives resistance readings directly opposite all temperature points of thermistor curves. Helps in selection of configuration.

THERMISTOR MANUAL



The thermistor manual is a step by step primer that is informative and provides assistance from basic definition and characteristics to final selection for specific applications. This manual explains all thermistors functions and provides over 500 thermistors from which to choose. Includes reference EMC-6 for R-T curve Data. Shpg. wt. 4 oz.

791-0450 Package—Computer and Manual.....1.53

MATCHED THERMISTOR ASSEMBLIES



Matched pairs for use in gas chromotographic equipment and other thermal conductivity gas analysic instruments. Each bead is mounted to a special hermetically-sealed stem. For maximum sensitivity, the higher resistance units should be used at higher ambient temperatures. 8 oz.

TYPE G126. R_e at 25°C, 2000 ohms ±25%; R_e at 0°C (approx.), 4900 ohms; at 50°C (approx.), 890 ohms. Pwr. ratng, air, 15 mW; helium, 60 mW.

TYPE G112. R_o at 25°C, 8000 ohms $\pm 20\%$; R_o at 0°C (approx.), 23,200 ohms; at 50°C (approx.), 3,200 ohms. Power, alr, 45 mW; helium, 140 mW.

TYPE G128. R_0 at 25°C, 100,000 ohms $\pm 20\%$; R_0 at 0°C (approx.), 355,000 ohms; at 50°C (approx.), 34,000 ohms. Pwr., alr, 45 mW; helium, 140 mW.

Stock	Mfr's		EA	CH
No.	Туре	Description	1-9	10-Up
791-0447	G126	Two GC32L3 units	14.45	11.54
791-0446	G112	Two GC38L1 units	28.66	22.88
791-0448	G128	Two GA5112 units	33.07	26.40

FIG. B-FAST RESPONSE GLASS PROBES

MICRO-MINI PROBE

	الناند	R° at				D.C.	. 2	Lead							EACH	
Stock	Mfr's	25°C	%		R-T	(Mw/	T.C.	Dia.	Lead	"L	,D	B	Tin-		10-	25-
No.	Type	Ohms	Tol.	Ratio	Curve	`°C)	(Sec)	(in.)	Mat'l	(in.)	(in.)	(in.	ned	_	24	Up
791-0390	GD31MC1	1000	20	4.8	8	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0384	GC32MC1	2000	20	5.5	9	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0386	GC33MC1	3000	20	5.5	9	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0387	GC35MC1	5000	20	5.5	9	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0374	GB41MC1	10K	20	7.04	11	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0375	GB42MC1	15K	20	7.04	11	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0376	GB42MC11	20K	20	7.04	11	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0379	GB43MC1	25K	20	7.04	11	0.16	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0380	GB43MC11	30K	20	7.59	12	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0382	GB44MC1	40K	20	7.59	12	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0383	GB45MC1	50K	20	7.59	12	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.88	5.50	3.67
791-0352	GA51MC1	100K	20	9.1	13	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.63	5.30	3.54
791-0357	GA52MC1	200K	20	9.1	13	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.63	5.30	3.54
791-0359	GA53MC1	300K	20	9.5	14	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.63	5.30	3.54
791-0361	GA55MC1	500K	20	10.3	15	0.15	1.6	.001	PT-IR	3/8	.020	1/4		7.98	6.38	4.26
791-0362	GA61MC1	1 meg.	20	10.9	3	0.15	1.6	.001	PT-IR	3/8	.020	1/4		7.98	6.38	4.26
791-0363	GA65MC1	5 meg.	20	11.78	4	0.15	1.6	.001	PT-IR	3/8	.020	1/4		6.75	5.40	3.60

SUB-MINI PROBE

791-0389 791-0391 791-0385 791-0372 791-0381	GD25SM2 GD31SM2 GC32SM2 GB38SM2 GB43SM2	500 1 K 2 K 8 K 2 5 K	20 20 25 20 20 20	4.80 4.80 5.5 7.04 7.59	8 8 9 11 12	0.3 0.3 0.3 0.3 0.3	2.6 2.6 2.6 2.6 2.6 2.6	.003 .003 .003 .003	PT-IR PT-IR PT-IR PT-IR PT-IR	7/4 1/4 1/4 1/4 1/4	.030 .030 .030 .030 .030	3/32 3/32 3/32 3/32 3/32 3/32	 6.75 6.75 6.75 6.75 6.75	5.40 5.40 5.40	3.60 3.60 3.60 3.60 3.60
791-0351 791-0356 791-0357 791-0360	GA45SM2 GA51SM2 GA52SM2 GA53SM2	50K 100K 200K 300K	15 15 15 20	9.1 9.1 9.5 9.5	13 13 14 14	0.3 0.3 0.3 0.3	2.6 2.6 2.6 2.6	.003 .003 .003 .003	PT-IR PT-IR PT-IR PT-IR	1/4 1/4 1/4 1/4 1/4	.030 .030 .030 .030	9/32 9/32 9/32 8/32	 6.75 6.75 6.75 6.75	5.40 5.40	3.60 3.60 3.60 3.60

MINI PROBE

		400	- 00	4.00		0.7	10	T 000	Dumet	11/4	.060	1/		4.20	3.36	2.24
791-0388	GD21M2	100	20	4.80	11	0.7	10	.008		11/4	.060	1/2	Å			2.24
791-0366	GB31M2	1 K 2 K	20	7.04	11	0.7	10	.008	Dumet		.060	1/2	•			2.24
791-0367 791-0373	GB32M2 GB41M2	10K	20	7.59	12	0.7	10	.008	Dumet		.060	1/4	Ŷ	4.20		2.24
791-03/3	GA45M2	50K	20	9.53	14	0.7	10	.008	Dumet		.060	1/2	x	4.20		2.24
791-0352	GA51M2	100K	20	10.3	15	0.7	10	.008		11/4	.060	1/2	Х	4.20	3.36	2.24

FIG. B-GLASS PROBES

791-0425	GB31P2	1K	20	7.04	11	1.7	22	.012	Dumet	2	.100	1/2	X	3.00	2.40	1.60
791-0431	GB32P2	2K	20	7.04	11	1.7	22	.012	Dumet	2	.100	1/2	Х	3.00	2.40	1.60
791-0432	GB32P8	2K	20	7.04	11	1.7	22	.012	Dumet	2	.100	1/2	X	3.53	2.82	1.88
791-0433	GB34P2	4K	20	7.04	11	1.7	22	.012	Dumet	2	.100	1/2	Х	3.00	2.40	1.60
791-0437	GA41P2	10K	20	7.59	12	1.7	22	.012	Dumet	2	.100	1/2	Х	3.60	2.88	1.92
791-0346	GA42P22	20K	15	9.1	13	1.7	22	.012	Dumet	2	.100	1/2	X	3.60	2.88	1.92
791-0347	GA43P2	30K	20	9.1	13	1.7	22	.012	Dumet	2	.100	1/2	X	3.60	2.88	1.92
791-0348	GA44P2	40K	15	9.53	14	1.7	22	.012	Dumet	2	.100	1/2	X	3.60	2.88	1.92
791-0404	GA45P2	50K	20	9.53	14	1.7	22	.012	Dumet	2	.100	1/2	X	3.30	2.64	1.76
791-0349	GA45P8	50K	15	9.53	14	1.7	22	.012	Dumet	2	.100	1/2	X	3.88	3.10	2.68
791-0410	GA51P8	100K	15	10.3	15	1.7	22	.012	Dumet	2	.100	1/2	Х	3.53		1.88
791-0415	GA52P2	200K	20	10.3	15	1.7	22	.012	Dumet	2	.100	1/2	X	3.00	2.40	1.60
791-0419	GA55P2	500K	20	11.78	4	1.7	22	.012	Dumet	2	.100	1/2	Х	3.60	2.88	1.92
791-0422	GA61P2	1 meg.	20	13.12	5	1.7	22	.012	Dumet	2	.100	1/2	X	4.20	3.36	2.24

FIG. A-GLASS COATED BEADS

791-0424	GB31J1	1K 1	20	7.04	11	.4	4	.004	PI-IR	1/8	.043		4.05		
791-0427	GB32J2	2K	20	704	11	.4	4	1.004	PT-IR	3/8	.043		2.94	2.35	1.57
791-0435	GB35J1	5K	20	7.04	11	.4	4	.004	PT-IR	3/8	.043		4.86	3.89	2.60
791-0436	GB41J1	10K	20	7.59	12	4	4	.004	PT-IR	3/8	.043		4.86	3.89	2.60
791-0401	GA42J16	15K	20	9.1	13	À	À	.004	PT-IR	3/8	.043		4.86	3.89	2.60
/31-0401	UM4ZJ10		- Deckel			النناا	7			70		***************************************		كشارات	
791-0403	GA45J1	50K	20	9.53	14	.4	4	.004	PT-IR	3/8	.043				2.14
791-0403	GA51J1	100K	15	10.3	15	.4	4	.004	PT-IR	3/8	.043		2.94	2.35	1.57
791-0414	GA52J16	150K	20	10.3	15	4	4	.004	PT-IR	3/8	.043		4.06	3.25	2.16
791-0412	GA52J2	200K	20	10.3	15	À	À	.004	PT-IR	3/4	.043		4.06	3.25	2.16
		4			13		Ä			3/	.043			4.54	3.03
791-0421	GA61J1	1 meg.	20	13.12	3	.4	4	.004	PT-IR	78	.043		3.07	4.04	0.03

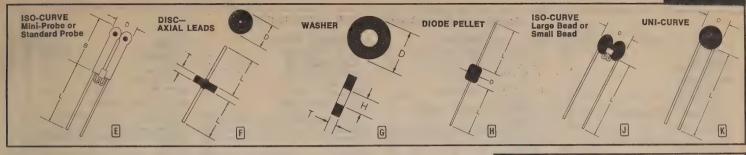
FIG. D-RODS

791-1450 T835J1 5K 10 6.95 10 15 110 .032 Copper 2 .173 1½ x 2.03 1.62 1.791-1300 RA42J1 20K 10 9.1 16 15 110 .032 Copper 2 .173 1½ x 1.80 1.44		TB35J1	100K 5K 20K	10 10 10	9.1 6.95 9.1	16 10 16	15	110	.032		2	.173	11/2	X	1.88 2.03 1.80	1.62	1.0
---	--	--------	-------------------	----------------	--------------------	----------------	----	-----	------	--	---	------	------	---	----------------------	------	-----

FIG. G-WASHERS

		R° at								EACH	
Stock No.	Mfr's Type	25°C Ohms	% Tol.	Ratio	R-T Curve	D (in.)	H (in.)	Thk. (In.)	1-	10- 24	25- Up
791-1603 791-1605 791-1600 791-1601 791-1602	WB11W1 WB13W1 WA21W1 WA23W1 WA24W1	10 31.5 100 315 415	10 10 10 10 10	6.9 6.9 9.1 9.1 9.1	10 10 16 16 16	.77 .77 .77 .77 .77	.281 .281 .281 .281 .281	.038 .112 .048 .151 .195	1.88 1.88 1.88 1.88	1.50 1.50 1.50 1.50 1.50	1.00 1.00 1.00 1.00

Thermistors



					F	IG. C	AN.	D F-	-DIS	cs							
Stock No.	Mfr's Type	Fig.	Ro@ 25°C	% Tol.	Ratio	R-T Curve	D.C. (Mw /°C)	T.C. (Sec.)	Lead Dia. (In.)	Lead Mat'l	L (In.)	D (In.)	Thk.	Tinned	1- 9	10- 24	25- Up
791-0305 791-0302 791-0303 791-0300 791-0301 791-0307 791-0304	FD21J1 FB31J1 FB32J1 FA41J1 FA42J1 FP51J1 FP52J1	C.1 C.1 C.1 C.1 C.1 C.1 C.1	100 1K 2K 10K 20K 100K 20K	10 10 10 10 10 10	4.8 6.95 6.95 9.1 9.1 11.60 11.60	8 10 10 16 16 2 2	1.5 1.0 1.5 1.0 1.5 1.0	4 3 4 3.5 4.5 3.5 4.5	.010 .010 .010 .010 .010 .010	Copper Copper Copper Copper Copper Copper Copper	1½ 1½ 1½ 1½ 1½ 1½ 1½	.050 .050 .050 .050 .050 .050	.033 .017 .034 .024 .048 .022 .043	X X X X X	2.18 2.18 2.18 2.18 2.18 2.18 2.18 2.18	1.74 1.74 1.74 1.74 1.74 1.74	1.16 1.16 1.16 1.16 1.16 1.16
791-0606 791-0604 791-0605 791-0600 791-0601	JD12J4 JB25J1 JB31J1 JA33J1 JA35J1	00000	15 500 1K 3K 5K	10 10 10 10 10	4.80 6.95 6.95 9.1 9.1	8 10 10 16 16	3 4 3 4	10 10 10 10 10	.013 .013 .013 .013 .013	Copper Copper Copper Copper Copper	1 1 1 1	111111	.020 .035 .069 .029 .048	X X X X	1.50 1.50 1.50 1.50 1.50	1.20 1.20 1.20 1.20 1.20	.80 .80 .80 .80
791-0602 791-0603 781-0608 791-0610	JA38J1 JA41J1 JP43J2 JP51J1	0000	8K 10K 25K 100K	10 10 10 10	9.1 9.1 11.60 11.60	16 16 2 2	4 4 3 4	10 10 10 15	.013 .013 .013 .013	Copper Copper Copper Copper	1 1 1	.1 .1 .1 .1	.076 .095 .022 .087	X X X	1.50 1.50 1.50 1.50	1.20 1.20 1.20 1.20	.80 .80 .80
791-0703 791-0704 791-0706 791-0700 791-0701	KB21J1 KB22J1 KB25J1 KA31L1 KA33J1	00040	100 200 500 1K 1K	10 10 10 10 10	6.95 6.95 6.95 9.1 9.1	10 10 10 16 16	4 5 6 6	16 18 25 20 20	.020 .020 .020 .020 .020	Copper Copper Copper Copper Copper	1½ 1½ 1½ 1½ 1½	.2 .2 .2 .2 .2 .2	.028 .055 .138 .038 .038	X X X X	1.28 1.28 1.28 1.28 1.28	1.02 1.02 1.02 1.02 1.02	.68 .68 .68
791-0702 791-0712 791-0100	KA35J3 KP41J2 CA31J1	000	5K 10K 1K	10 10 10	9.1 11.60 9.1	16 2 16	7 4 8	35 20 48	.020 .020 .020	Copper Copper Copper	1½ 1½ 1½	.2 .2 .3	.190 .035 .086	X X X	1.28 1.28 1.28	1.02 1.02 1.02	.68 .68
791-0804 791-0805 791-0806 791-0801 791-0802	LB15J1 LB21J1 LB22L1 LA25L2 LA31J1	COFFC	15 100 200 500 1K	10 10 10 10 10	6.95 6.95 6.95 9.1 9.1	10 10 10 16 16	7 8 11 8 10	40 65 110 60 70	.025 .025 .025 .025 .025	Copper Copper Copper Copper Copper	3 ³ / ₄ 3 ³ / ₄ 3 ³ / ₄ 3 ³ / ₄	.4 .4 .4 .4	.055 .110 .220 .076 .152	X X X X	1.28 1.28 1.28 1.28 1.28	1.02 1.02 1.02 1.02 1.02	.68 .68 .68
791-0812 791-0813 791-0125	LP33J1 LP42J2 DB15J1	C	2.5K 15K 50	10 10	11.60 11.60 6.95	2 2	8 10 8	40 150 60	.025 .025	Copper Copper	3¾ 3¾ 3¾	.4	.035	X	1.28 1.28	1.02	.68
791-0950 791-0900 791-0901	MB13J1 MA21J1 MA22J1	000	25 100 200	10 10 10	6.95 9.1 9.1	10 16 16	25 20 30	85 80 90	.025 .025 .025	Copper Copper Copper Copper	3¾ 3¾ 3¾ 3¾	.6 .6	.062 .034 .069	X X X	1.28 1.28 1.28	1.02 1.02 1.02	.68 .68
791-0902 791-1002	MA23J1 NB11J1	CC	300 10	10 10	9.1 6.95	16 10	50 20	115 90	.025	Copper Copper	3¾ 3¾	.6 .77	.103 .041	X	1.28	1.02	.68
791-1075 791-9050 791-9000 791-9001	NP34J1 ZB11J1 ZA21J1 ZA22J1	CCCC	4K 10 100 200	10 10 10 10	11.60 6.95 9.1 9.1	10 16 16	20 30 35 40	300 140 165 230	.032 .040 .040 .040	Copper Copper Copper Copper	3¾ 3¾ 3¾ 3¾	.77 1.0 1.0 1.0	.206 .069 .095 .190	X X X	1.28 1.88 1.88 1.80	1.02 1.50 1.50 1.50	1.68 1.00 1.00 1.00

FIG. H-PELLETS

791-1103 791-1104 791-1100 791-1099	PB35D1 PB41D1	H	2K 5K 10K 20K	10 10 10 10	6.95 6.95 6.95 9.1	10 10 10 10	2 2 2 2	8 8 8	.015 .015 .015 .015	Dumet Dumet Dumet Dumet	11/8 11/8 11/8 11/8	.070 .070 .070 .070	1.50 1.50 1.50 1.50	X X X	2.70 2.70 2.70 2.70 2.70	2.16	1.44 1.44 1.44 1.44
791-1101 791-1102 791-1105 791-1106	PA45D1 PA51D1 PP52D1 PP61D1	H	50K 100K 200K 1 meg.	10 10 10 10	9.1 9.1 11.60 11.60	16 16 2 2	2 2 2 2 2	8 8 8	.015 .015 .015 .015	Dumet Dumet Dumet Dumet	11/8 11/8 11/8 11/8	.070 .070 .070 .070	1.50 1.50 1.50 1.50	X X X	2.70 2.70 2.70 2.70 2.70	2.16 2.16 2.16 2.16	1.44 1.44 1.44 1.44

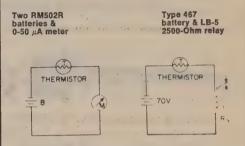
FIG. E-ISO-CURVE® INTERCHANGEABLE THERMISTORS Tinned Dumet leads, .008" diameter. Note: also available in Fig. J. on special order.

Stock No.	Mfr's Type	Ro@ 25°C	Tmp. Tol. at Range (±°C)	Temp. Range °C	Ratio	R-T Curve	D.C. (Mw/ °C)	T.C. (Sec)	L (in.)	D (in.)	8 (In.)	1-9	إنكنا	25-Up
791-0364 791-0365	GB25MM62 GB25MM72	500 500	0.5 1.0	-50 to +150 -50 to + 50	7.04	500 500	1.4	10 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.120	1/2	33.00	30.00	24.00 24.00
791-0368	GB32MM232	2001	0.5	0 to +125	7.04	2K	1.4	10	13/8	.120	1/2	33.00	30.00	24.00
791-0369 791-0370	GB32MM242 GB34MM312	2001 4002	1.0 0.5	0 to +125 0 to +150	7.04 7.04	2K 4K	1.4	10 10	13/8 13/8	.120 .120	1/2 1/2	33.00 33.00	30.00 30.00	24.00 24.00
791-0371 791-0377	GB34MM322 GB42MM192	4002 15K	1.0 0.5	0 to +150 0 to +200	7.04 7.59	4K 15K	1.4	10 10	1 3/8 1 3/8	.120	1/2	33.00	30.00	24.00
791-0378	GB42MM202	15K	1.0	0 to +200	7.59	15K	1.4	10	13/8	.120	1/2	33.00	30.00	24.00
791-0354 791-0355	GA51MM322 GA51MM332	100K 100K	0.5 1.0	+50 to +250 +50 to +250	9.53 9.53	100K 100K	1.4	10	1% 1%	.120 .120	1/2	33.00 33.00	30.00 30.00	24.00 24.00

FIG. K-UNI-CURVE® INTERCHANGEABLE THERMISTORS Tinned copper alloy leads, .008" diameter

791-1550	UUD21J1	091	±0.2	-20 to + 50			1	10	3	.095		6.88	5.50	3.80
791-1553	UUD23J1	300	± 0.2	1 -20 to + 50			1	10	3	.095		6.88	5.50	3.80
791-1525	UUB25J1	500	±0.2	0.to + 70			1	10	3	.095		6.88	5.50	3.80
791-1531	UUB31J1	1K	±0.2	0 to + 70			1	10	3	.095		6.88	5.50	3.80
791-1500	UUA33J1	3K	±0.2	0 to + 70			1	10	3	.095		6.88	5.50	3.80
791-1501	UUA35J1	5K	±0.2	0 to + 70			1 1	10	3	.095		6.88	5.50	3.80
791-1502	UUA41J1	10K	±0.2	0 to + 70			1	10	3	.095		6.88	5.50	3.80
791-1503	UUT43J1	30K	±0.2	0 to + 70			1	10	3	.095		6.88	5.50	3.80
791-1505	UUT51J1	100K	±0.2	0 to + 70		*****	1	10	3	.095		6.88	5.50	3.80

DESIGN YOUR OWN MEASUREMENTS OR CONTROL DEVICE USING A 135-OHM (GA51P) THERMISTOR



When designing your own measurement or control device, thermistors can help to do the job better. Thermistors do hundreds of jobs better—temperature measurement, compensation and control; time delay; remote control; switching; liquid level control; power measurement and control; and much more.

EXPERIMENTER'S THERMISTOR PROBE AND KITS

EXPERIMENTER'S THERMISTOR PROBE

MODEL K600A. Thermistor mounted on card, with instructions and schematic for use as a remote temperature indicator, liquid level-control or time-delay relay. Rated 135k at 25°C; 1 mW/°C dissipation constant, 25 seconds; still-air time constant 0.3 second in rapidly stirred water. Shpg. wt. 2 oz. Each 1.53 791-0714



ENGINEER'S THERMISTOR KITS

For high school, college or university labs; R&D labs; circuit design; experimental electrical and electronic applications.

MODEL G-200 STANDARD KIT. Contains 12 different thermistors (2 glass probes, 3 beads, 2 discs, 3 rods, 2 washers).

Each thermistor is packed with specification sheets showing complete characteristics. Shpg. wt. 1 lb.

791-0449 Each 19.99

ECONOMY THERMISTOR KITS



MODEL G-700 LOW-COST KIT. Four glass beads and probes, manual and computer. Shpg. wt. 1 lb.

MODEL G-701 ECONOMY KIT. 10 glass beads and probes, manual and computer. Shpg. wt. 1 ib.
791-0453Each 12.45

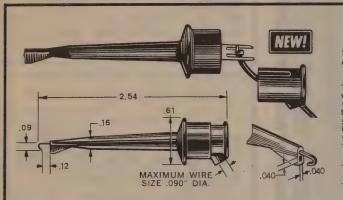
UNI-CURVE THERMISTOR KIT



MODEL G-500. Contains 6 standard

Test Clips and Leads for Miniature Circuits

INDEX OF SEMICONDUCTOR ACCESSORIES TOOLS Allied Cambion Hunt Johnson, E. F. Thermalloy Vector PC BOARDS & ACCESS. 52 Circuit Stik 52 Kepro 58 Radio Shack 64 Vector 56, 57, 63 DUAL-IN-LINE SOCKETS BREADBOARD KITS Amphenol Cambion Cinch H. H. Smith Vector 55, 57 CARD RACKS H. H. Smith 63 CHEMICALS HEMICALS General Cement General Electric Radio Shack Thermalloy Vigor Wakefield HEAT SINKS & ACCESS. WiltonTRANSISTOR SOCKETS PC DESIGNING AIDS TRANSISTOR SOCKETS Cinch 53 Pomona 53 H. H. Smith 54 TRANSISTOR TESTING EQUIPMENT 8K Darco 274 Eico 271 Kurz-Kasch 269 Amphenol Cambion Cinch H. H. Smith Thermalloy Vector CIRCUIT BOARD BRACKETS Raytheon CIRCUIT BOARD SUPPORTS Eico 261 Kurz-Kasch 268 Micronta 271 RCA 271 Sencore 268, 273 Richco Amphenol DUAL-IN-LINE CIRCUIT TEST ADAPTERS, SOCKETS BOARDS & ACCESS. IC TEST CLIPS Pomona 48 Triad 52



DO-IT-YOURSELF "GRABBER"

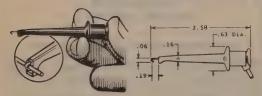
- Plunger type Action Between Thumb and Two Fingers
- Comfortable Finger Grip Operation Positive Connection that won't Pop Off
- No Sharp Teeth to Damage or Nick Wires
 Simplified Assembly Procedure • High Temperature Material • Accepts Wire Up to .090" Diameter

This Do-It-Yourself Grabber provides the user with the ability to build his own leads. The unit is completely field-serviceable and features a simplified assembly procedure. The gold plated contact hook can be connected rapidly to component leads, and the specially designed tip slides down over .025 square

wire wrap pins. The entire unit is molded of Lexan® Polycarbonate thermoplastic for strength and less chance of melting when soldering lead. Simplified assembly procedure for attaching lead: pull off thumb cap, thread wire through thumb cap, insert end through hole on contact, and solder.

Stock	Mfr's		EACH						
No.	Туре	Color	1-9	10-24	25-49	50-Up			
885-0951 885-0952	3925 3925	Red Black	1.50 1.50	1.20 1.20	.77 .77	.72 .72			

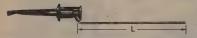
MINIATURE TEST CLIPS WITH "THE GRABBER"



- Quick and Easy Plunger-Type Action
- Gold-Plated Beryllim Copper Conductor
- Completely Insulated Test Clip
- . Molded Nylon Insulation on Clip, Wire

Miniature test clips for making rapid and reliable tests. Nylon insulation molded directly onto clip and wire provide a strong, reliable integral unit. Operating temp.: —25°C to +105°C. Av. shpg. wt. 2 oz.

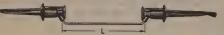
MINI-TEST CLIP ONE END ONLY



Miniature test clip with wire connected one end only. No connector on opposite end allows connection of various components. Wire is 20 AWG, stranded. Extra flexible polyvinyl insulation. .087" O.D.

Stock	Mfr's	Color	L. in.	EACH						
No.	Type			1-9	10-24	25-49	50-Up			
885-0900	3780-12	Black	12	1.70	1.00	.90	.85			
885-0901	3780-12	Red	12	1.70	1.00	.90	.85			
885-0902	3780-24	Black	24	1.70	1.00	.90	.85			
885-0903	3780-24	Red	24	1.70	1.00	.90	.85			
885-0904	3780-48	Black	48	1.77	1.05	.95	.89			
995 9995	2700 40	Red	AO	1 77	1 05	ac.	.00			

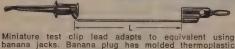
MINI-TEST CLIP BOTH ENDS



Miniature test clip on both ends for rapid interconnection of test points. Connects quickly to test points.

885-0910	3781-12	Black	12	2.82	1.65	1.49	1.40
885-0911	3781-12	Red	12	2.82	1.65	1.49	1.40
885-0912	3781-24	Black	24	2.82	1.65	1.49	1.40
885-0913					1.65	1.49	1.40
885-0914						1.53	1.45
885-0915	3781-48	Red	48	2.97	1.65	1.53	1.45

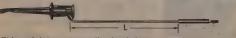
MINI-TEST CLIP TO STACKING BANANA PLUG



	885-0921	3/82-12	Ked	
	885-0922	3782-24	Black	
a	885-0923	3782-24	Red	
C	885-0924	3782-24	Black	
	005 0025	2702 AD	Dad	

885-0920	3782-12	Black	12	2.97	1.65	1.49	1.40
885-0921	3782-12	Red	12	2.97	1.65	1.49	1.40
885-0922	3782-24	Black	24	2.97	1.65	1.49	1.40
885-0923	3782-24	Red	24	2.97	1.65	1.49	1.40
885-0924	3782-24	Black	48	3.02	1.70	1.53	1.45
885-0925	3782-48	Red	48	3 02	1 70	1 53	1 45

MINI-TEST CLIP TO .025 SQUARE PIN RECEPTACLE



	3			
This miniatur square pin rec				

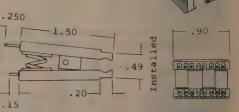
885-0930 885-0931			1.65 1.65	1.49	1.40
885-0932 885-0933				1.49	1.40
885-0934 885-0936		3.02 3.02	1.70 1.70		1.45 1.45

"DIP CLIP"™ IC TEST CLIP

For Quick, Easy and Safe Testing of 14 or 16 Lead **Dual-in-Line Packages**







- Allows Connection of Numerous Test Probes
- Keeps Test Probes at a Safe Distance
- Provides Hands-Free DIP Testing

• Provides Hands-Free DIP Testing

MODEL 3916. Allows the attachment of test probes to 14 or 16 lead dual-in-line packages. Keeps test probes at a safe distance—clip raises the work area above the circuit board, reducing the possibility of a test probe causing an accidental short while the technician is testing live circuits. Numerous test probes may be quickly connected for hands-free testing. Special finger design gives positive positioning, preventing accidental shorting of adjacent leads. Spring-loaded wiping action of contact pins gives good electrical connections. Contacts are of goldplated phosphor bronze for dependable contact. The .032" diameter pins are on .100" centers. Write or phone Allied for higher quantity prices. Wt. 6 oz.

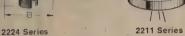
Stock	Mfr's	Description	EACH				
No.	Type	Description	1-9	10-49	50-Up		
885-0950	3916	Dip Clip IC Test Clip	8.17	5.75	5.18		

48 • ALLIED









SERIES 2224 LOW-COST PRESS-ON HEAT SINKS

Easily installed heat sinks don't waste precious space on printed circuit boards. Circular convection-cooling flanges extend from top of heat sink, do not take up additional board space. Economical and versatile enough for almost all PC applications. Average shpg. wt. 1 oz.

		No.			Size	, In.	In. EACH				
Stock No.	Mfr's Type*	of Fins	Fits Case	°C/W	Dim.	Dim.	1- 49	50- 99	100- 499	500- Up	
957-2030 957-2110 957-2120 957-2130 957-2150	2224B 2225B 2225C 2226C 2227B	1 2 2 1 2	TO-18 TO-5 TO-5 TO-5 TO-5	83 50 50 60 30	.50 .75 .75 .75 .75	.235 .40 .40 .22 .40	.35 .35 .35 .35	.28 .28 .28 .28	.19 .19 .19 .19	.18 .18 .18 .18	
957-2170 957-2180	2228B 2228C	3	TO-5 TO-5	34 34	.88	.53 .53	.48 .52	.38	.28 .30	.24	

SERIES 2211 AND 2215 CONVENTION COOLERS

Highly versatile, low cost circuit board heat sinks with single thru-hole and two mounting holes (2215 tapped for 2-56 screws). The two-hole mounting provides shock protection. Fit case TO-5. Shpg. wt. 1 oz.

			Size, In.		Tapped	EACH				
Stock No.	Mfr's Type*	°C/W	Dim.	Dim. "B"	Mtg. Holes	1- 24	25- 99	100- 499	500- Up	
957-2040 857-2080	2211B 2215B	53 39	.63 .75	.31 .38	No Yes	.70 1.52	.56 1.22	.40 .78	.35	

*Note: Finish is denoted by suffix letter: A, hard anodize per MIL-F-14072, 400 volts insulation; B; black anodize per MIL-A-8625 Type 11; C, gold chromate finish per MIL-C-5541







1115 Series

SERIES 2205 HIGH-PERFORMANCE CONVENTION COOLERS

Two-piece heat sinks with screw-in Teflon inserts hold transistor weld flange tightly to provide maximum conduction path. Positive lead insulation. Wt. 1 oz.

				Size,	nches	EACH				
Stock No.	Mfr's Type*	Fits Case	°C/W	Dim.	Dim. "B"	1- 24	25- 99	100- 499	500- Up	
957-2000 957-2060	2205B 2212B-5	TO-5 TO-5	50 38	.82 1.06	.34	1.50 3.75	1.14 3.00	2.50	.70 2.00	

SERIES 2230-5 AND 3005 HEAT SINKS

Unique screw boss for mounting ease. Anodized finish. Type 2230-5 is an aluminum press-on heat sink. Mfr's. Type 3005 is a duosink to maintain equal case temperature with electrical insulation. Av. shpg. wt. 1 oz.

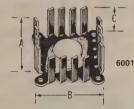
				Size, Inches				EA	СН	
Stock	Mfr's	Fits	TR	Dim.	Dim.	Dim.	1-	25-	100-	500-
No.	Type*	Case	°C/W		"B"	"C"	24	99	499	Up
957-2190	2230B-5	TO-5	55	.75	.25	.38	.28	.22	.18	.17
957-2200	2230C-5	TO-5	55	.75	.25		.25	.20	.15	.14
957-2210	3005A	TO-5	30	1.25	.50		4.00	3.16	2.25	1.90

SERIES 1115 COMBINATION RETAINERS/HEAT SINKS

Retain devices and dissipate heat. Type 1115 is lead mounted. Type 1116 is tapped for a 4-40 screw. Average shpg. wt. 1 oz.

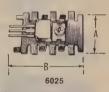
	Equiv. Ther-			Size, Inches		EACH			
Stock No.	maloy Type	Fits Case	TR °C/W	Dim.	Dim.	1- 24	25- 99	100- 499	500- Up
957-1740	1115B	TO-5	68	.38	.40	.22	.18	.14	.13











SERIES 6007 DIP HEAT SINKS

Two-place design provides positive retention and improves thermal performance. Hard anodized insulation finish. Shpg. wt. 1 oz.

No. Type	0							
ito. Type	Case	C/W	"A"	"B"	"C"	1-24	25-49	50-Up
957-2662 6007A	DIP	32	.24	1.24	.57	.98	.78	.58

SERIES 6001 HIGH PERFORMANCE BOARD COOLERS

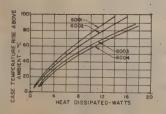
All-directional slanted vanes cool more effectively than any other type per unit volume occupied. TR figures are for 10 watts, natural convection. 1 oz.

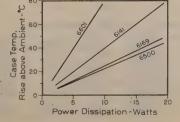
				Si	ze, Inch	8 S	EACH				
Stock No.	Mfr's Type°	Fits Case	TR °C/W	Dim.	Dim.	Dim.	1- 24	25- 49	50- 99	100- Up	
957-2600 957-2620 957-2640 957-2650 957-2610 957-2630	6001B-2 6002B-2 6003B-2 6004B-2 6001B-11 6002B-11	T0-3 T0-3 T0-3 T0-66 T0-66	7.9 7.0 6.2 5.8 7.9 7.2	1.81 1.81 1.81 1.81 1.81 1.81	1.81 1.81 1.81 1.81 1.81 1.81	.50 .75 1.00 1.25 .50 .75	1.50 1.58 1.75 1.80 1.50 1.58	1.20 1.26 1.40 1.44 1.20 1.26	.88 .92 .96 .98 .88	.81 .84 .87 .88 .81	

SERIES 6103 AND 6166 TWO-PIECE PC HEAT SINKS

Highly popular two piece heat sink for printed circuit board mounting. Have maximum heat transfer mounting configuration; heat is transferred from both top and bottom of semiconductor device. Average shpg. wt. 1 oz.

957-2700 957-2720 957-2860 957-2710	6103B 6103C 6166B 6103B base		12 12 14 14	1.25 1.25 .87 1.25	1.58 1.58 1.32 1.58	.50 .50 .63 .50	.73 .68 .75 .43	.58 .50 .60	.45 .40 .43 .25	.41 .35 .40
957-2870	6166B base	TO-66	16	.87	1.32	.63	.40	.32	.23	.21





SERIES 6106 AND 6107 COOLERS FOR FLAT POWER DEVICES

For flat plastic power transistors, silicon-controlled rectifiers. Triacs and Quadracs. Dissipate up to 8 watts. TR figure is for operation at 2 watts using natural convection. Average shpg. wt. 1 oz.

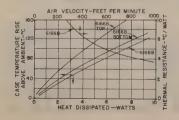
				Size,	nches	EACH						
Stock No.	Mfr's Type*	Style	TR °C/W	Dim.	Dim.	Dim.	1- 24	25- 49	50- 99	100- Up		
957-2730 957-2740 957-2750 957-2760 957-2770 957-2790	6106B 6106C 6106C-13 6107B 6107B-14 6107C-14	Blank Blank 2-hole Blank 1-hole 1-hole	19 19 19 25 25 25	1.00 1.00 1.00 1.00 1.00 1.00	1.18 1.18 1.18 1.18 .71 .71	.50 .50 .50 .50 .50	.30 .25 .25 .27 .21	.26 .20 .20 .22 .19	.21 .16 .16 .17 .15	.16 .11 .11 .13 .13		

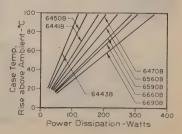
SERIES 6025 VERTICAL PLASTIC POWER COOLER

For use with today's compact equipment. Unique standup design permits good performance for plastic power device while taking little board space. Contains feet that add support to soldered leads. Type 6025B fits plastic case style; 6025D fits power case. See *Note below for suffix information.

Stock	Mfr's	TR	Size, I	nches		EACH	
No.	Type*	°C .	"A"	"B"	1-24	25-49	50-Up
957-2670 957-2671	6025B 6025D	. 24 34	.87 .87	1.25 1.25	.33 .42	.28 .34	.23 .28

*NOTE: Finish is denoted by suffix letter; A, hard anodize per MIL-F-14072, 400 V insul.; B, black anodize per MIL-A-8625 Type II; C, gold chromate per MIL-C-5541; D, nickel plated for soldering lugs.





Semiconductor Heat Sinks

2000 --K

HEAT SINK EXTRUSIONS

High quality extrusions in 3-foot lengths. Ideal for building prototype equipment or making special application heat sinks.

Stock	Mfr's	Fig.	Wakefield	Ship.		EACH 3-FT	r. LENGTH	
No.	Type		Cross-Reference	Wt.	1-24	25-49	50-99	100-Up
957-2800 957-2830 957-2880 957-2900 957-2930	6111 6141 6169 6176 6401	A E D C F	640 400	2 lbs. 3 lbs. 4 lbs. 3 lbs. 3 lbs.	2.48 8.76 9.50 6.82 9.00	1.50 5.40 5.85 5.00 5.50	1.35 4.05 4.50 4.00 4.80	1.20 3.60 4.05 3.00 4.20
957-2960 957-3030 957-3060	6421 6450 6500	H K G	420 460	8 lbs. 13 lbs. 4 lbs.	10.80 12.38 9.30	9.90 9.90 5.70	8.55 6.60 4.95	7.65 5.06 4.35

EXTRUDED POWER HEAT SINKS

Popular heat sinks for use with common power transistors, diodes and silicon-controlled rectifiers in commercial, industrial or military applications. Excellent wherever space is at a premium. Cover large surface area to give low thermal resistance and more effective cooling. Extruded aluminum, Type 603676. Flanges have notches for mounting, Black anodized finish, Fig. K Dimensions (A x B x C): 6450 and 6470, 4.00 x 4.00 x 1.25"; 6560 and 6590, 5.00 x 5.00 x 1.81"; 6660 and 6690, 6.25 x 6.25 x 1.81". Av. shpg. wt. 4 oz.

			Fits	70	Lash	Wake- field		EAC	H	
Stock No.	Mfr's Type	Fig.	Case Style	°C/W	Lgth.	Equiv.	1-24	25-49	50-99	100-Up
957-2810 957-2820 957-2910 957-2920	6111B 6111B-66 6176B 6176B-2	A A B B	Blank TO-66 Blank TO-3	10 10 5.4 5.4	1.5 1.5 3.0 3.0		.82 1.70 .95 1.45	.66 1.36 .76 1.16	.50 1.00 .54 .72	.44 .90 .47
957-2840 957-2850 957-2890 957-3070 957-3080 957-3120	6141B 6141B-2 6169B 6500B 6500B-2 6601B	E D G G R	TO-3 Blank Blank TO-3 Blank	3.7 2.2 2.5 2.5 8.0	3.0 3.0 3.0 3.0 3.0	614K	2.20 2.30 2.02 2.18 1.15	1.54 1.76 1.84 1.62 1.74	1.10 1.20 1.25 1.15 1.23	.96 1.08 1.07 .97 1.05
957-2940 957-2950 957-2970 957-2990 957-2980	6401B 6403B 6421B 6423B 6421B-2	F H H	Blank Blank Blank Blank TO-3	2.3 1.5 1.0 0.9 1.0	1.5 3.0 3.0 5.5 3.0	401K 403K 421K 423K 421A	1.18 2.22 3.40 5.68 3.58	.99 1.78 2.72 4.54 2.86	.79 1.35 1.99 3.24 1.94	.65 1.15 1.70 2.79 1.65
957-3000 957-3020 957-3040 957-3100 957-3110 957-3140	6423B-2 6441B 6450B 6560B 6590B 6660B	H K K K K	TO-3 Blank Blank Blank Blank Blank	0.9 0.6 0.60 0.45 0.30 0.36	5.5 5.5 5.0 6.0 9.0 6.0	423A 441K 465K 476K	5.82 9.72 9.50 12.85 16.00 11.60	4.66 7.78 7.60 10.28 12.77 9.92	3.15 5.25 3.60 7.00 11.00 9.00	2.70 4.48 3.40 6.70 10.70 8.55

SERIES 6500-UNIVERSAL HOLE PATTERN NO. 6 HEAT SINK



Available only on the 6500 series. Designed to accept case styles TO-3 with socket; TO-66 with socket; TO-3; TO-66; TO-36; DO-4(10-32); DO-5(¼" Studi; Case 90-TO-220; Case 77. Six mounting notches provide additional heat sink mounting. Suffix in Mfr's Type designates finish: Suffix A—Hard Anodize per MIL-F-14072; Suffix B—Black Anodize per MIL-A-6625; Suffix C—Gold Chromate per MIL-C-5541; Suffix U—Plain (no finish) Plain (no finish).

Stock	Mfr's	EACH								
No.	Type	1-24	25-49	50-99	100-Up					
957-3800 957-3805 957-3810 957-3815	6500A 6500B 6500C 6500U	3.05 3.05 3.05 3.05	2.44 2.44 2.44 2.44	1.63 1.63 1.63 1.63	1.25 1.25 1.25 1.25					

NATURAL CONVECTION SINKS



Efficient, economical. Aluminum alloy 606315; black anodize finish per MIL-A-8625 Type II. Suffices: A-TO-3; K-blank.

Caroli	Therm-	Equiv. Wake-	Size, Inches				EACH				
Stock No.	Type	field Type	Н	W	D	1-	25- 49	50- 99	100- Up		
957-0125 957-0126 957-0129 957-0130 957-0137	6401B 6403B-2 6403B	401 - A 401 - K 403 - A 403 - K 421 - A	1.50 1.50 3.00 3.00 3.00		1.25 1.25 1.25 1.25 2.63	2.17 2.17 3.35 2.22 5.12	1.74 1.74 2.68 1.78 4.10	1.47 1.47 2.11 1.38 2.48	1.20 1.20 1.67 1.13 2.20		
957-0138 957-0141 957-0142	6423B-2	421-K 423-A 423-K	3.00 5.50 5.50	4.81		3.40 5.82 5.67	2.72 4.66 4.54	2.10 3.59 3.49	1.73 2.95 2.87		

SERIES 600 SINKS FOR CIRCUIT BOARD MOUNTING

Popular assortment of heat sinks for a variety of applications. Type 603 offers ample cooling at 10 watts for TO-8 silicon transistor under natural convection at 60°C ambient. Type 623 is excellent for replacing marginal flat plates dissipation; accepts all case styles; provides 3.5°C/W under natural convection. Type 641 has optimized fin design for unusually large surface area.



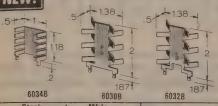
631

		Equiv.	EACH						
Stock	Thermalloy	Wakefield	1-	25-	50-	100-			
No.	Type	Type	24	49	99	Up			
957-0184	6603B	603-K	4.08	3.00	2.75	1.50			
957-0192	6129B	623-K	2.75	2.20	1.98	1.47			
957-0194	6169B-2	641-A	2.30	1.84	1.23	1.02			

ALUMINUM HEAT SINKS FOR TO-3, TO-66
Thermalloy equiv. types: *Base, no finish. ‡Base.

	Therm-	Therm- Wake-				EACH			
Stock No.	alloy Type	field Type	For	Finish	Ht., In.	1-		100- 499	500- Up
957-0197 957-0200	6103° 6166B‡	631-3-P 631-66-B	TO-3 TO-66	Plain Black	1	.40	.32	.25	.22

PLASTIC POWER-CIRCUIT BOARD COOLERS



Vertically mounted for plastic case SCR's, Triacs, Power Transistors. Heat is conducted thru the device tab to fins for dissipation in natural forced convection conditions. The 6034 has a cutout for center tab devices and both 6032 and 6034 allow center clearance for wiring. Material is 3003H14 Aluminum. Std. black anodize finish.

Stock	1 Mfr's				
No.	Type	1-24	25-49	50-99	100-Up
957-3820	6030B	.40	.32	.24	.20
957-3825	6032B	.40	.32	.24	.20
957-3830	- 6034B ~	.40	.32	.24	20

SERIES 6051 AND 6056 HEAT SINKS

Black Anodized Finish Standard

• Ec Fits Cases TO-3 and TO-66

			-
onomical	One-Plece	Coolers	

MODEL	DIM. A	MODEL	DIM. A
6051	0.50	6056	0.50
6052	0.75	6057	0.75
6053	1.00	6058	1.00
6054	1.25	6059	1.25



The 6051, 6056 series heat sinks are economical one-piece coolers for TO-3 and TO-66 case devices. Types 60518, 6052B, 6053B, 6054B are for TO-3 case devices. Types 6056B, 6057B, 6058B, 6059B are for TO-66 case devices. Standard finish for all types is Black Anodized. Mounting is easily accomplished by using the device mounting hardware that is included, reducing additional hardware and labor costs. For weights see chart at right. For dimension A, see chart above, right.

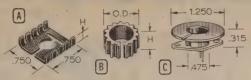
	Stock	Mfr's	Mfr's		EAUH							
	No.	Type	Case	Lbs.	1-24	25-49	50-99	100-Up				
9	57-3835	6051B	T0-3	0.022	1.40	1.12	.98	.75				
	57-3840	6052B	T0-3	0.032	1.50	1.20	1.04	.80				
	57-3845	6053B	T0-3	0.041	1.70	1.36	1.18	.90				
	57-3850	6054B	T0-3	0.050	1.78	1.42	1.22	.94				
9	57-3855	6056B	TO-66	0,022	1.40	1.12	.98	.75				
	57-3860	6057B	TO-66	0.032	1.50	1.20	1.04	.80				
	57-3865	6058B	TO-66	0.041	1.70	1.36	1.18	.90				
	57-3870	6059B	TO-66	0.050	1.78	1.42	1.22	.94				

Heat Sinks and Compounds

SERIES 1100 AND 2200 PENNYSINK SNAP-ON SINKS

Combine outstanding cooling and installation (no special tools needed). Unique spring keeps sink on device.

Suffix B — aluminum alloy black. Suffix C — aluminum alloy red anodize. anodize.



			For		Size, In.		EACH			
Stock No.	Mir's Type	Fig.	Case Style	1.D.	0.D.	н.	1- 24	25- 99	100- Up	
957-6000 957-6005 957-6010 957-6015 957-6020	2257R 2257C 1134B 2260R 1136B	B B A B	T0-5, 9, 11, 12, 29, 33, 39, 42, 43	.318 .318 .315 .318 .315	.500 .500 .750 .500 .750	.250 .250 .187 .375 .375	.30 .25 .25 .33 .28	.24 .20 .20 .26 .26	.20 15 .15 .21 .15	
957-6025 957-6030 957-6035 957-6040	2259R 2260C 2264C 2264R	B B B	T0-5, 9, 11, 12, 29, 33, 39, 42, 43	.318 .318 .318 .318	.625 .500 .750 .750	.375 .375 .375 .375	.33 .30 .35 .43	.26 .24 .28 .34	.21 .20 .23 .26	
957-6045	2266B	C	TO-8, 66	.475	1.250	.315	.53	.42	1 .30	

SERIES 200 FEATHERWEIGHT SNAP-ON SINKS

Compatible with entire JEDEC case range. Unique fin design permits horizontal or vertical orientation with excellent natural convection performance. Finish is beryllium copper black.







-			Fits Fits Size,				EA	CH			
Stock	Mfr's	Fig.	Case	JEDEC	Inches		1-	50-	500-		
No.	Type		Dia.	Cases	1.D.	0.D.	Ht.	49	499	999	Up
957-0430	201CB	D	.161/.240	TO-18, 24, 28, 40 and 44	.150	.640	.187	.27	.21	.16	.14
957-0435 957-0450	202CB 205CB	D.	.161/.240	As above 70-5, 9, 11, 12,	.150 .255	.490	.187	.24	.19	.14	.12
957-0452	205AB			16, 26, 29, 33, 39, 42, 43, 45				.19	.15	.12	.12
957-0460 957-0470	207CB 209CB	F	.275/.370	As above As above	.255 .255	.720 1.280	.375	.39	.31	.24	.22

SERIES 260 ECONOMY CUP CLIPS FOR TO-5

Suffix E in Mfr's Type indicates epoxy insulated; suffix B indicates BeO insulated; others are non-insulated. *indicates typical case-to-sink thermal resistance (°C/W). †typical case-to-sink capacitance.

FON 10-3 UNITS									
			Hole or	Ther.		E	ACH		
Stock No.	Mfr's Type	Fig.		Res.* (°CV)	Cap pFt	1- 49	50- 99	100- Up	
957-0001 957-0005 957-0015 957-0018	260-P5 260-4TH5E 260-6SH5B 260-10SH5B	G G H J	.112" dia. 4-40 fem. 6-32 stud 10-32 stud	12 14 16 16	30 3 3	.19 .59 1.19 1.19	.15 .46 .95	.12 .37 .80 .80	

MICA INSULATING WAFERS

For TO-3 and TO-66 case styles. Provides a lower thermal resistance, when installed between the semiconductor and the chas-sis or heat dissipator. Available in Package of 100 Only.

For use with type 152 and 154 resins (listed above).



Stock	For		Dimensions		PER PKG. OF 100			
No.	Туре	Case	Х	Υ	Z	1-9	10-24	25-Up
920-6285 920-6286	6285 6286	TO-3 TO-66	.430" .200"	.665" .580"	1.187"	6.75 6.75	5.40 5.40	4.50 4.50

SERIES 150 EPOXY COMPOUNDS

Bond 152 is for general cementing, thermally bonding semiconductors and components to chassis or heat sinks white electrically isolating one from the other. Bond 154 is medium viscosity, aluminum filled resin with the best thermal conductivity of the series (machines



EXPERIMENTAL KITS											
Thermaliny	Wakefield	Description	EACH								
Туре	Турв	20011111111	1-24	25-49	50-Up						
. 4952	152-K-A		8.45	6.76	4.00						
	Туре	Thermalloy Wakefield Type Type 4952 152-K-A	Thermalloy Wakefield Description Type Type	Thermalloy Wakefield Description 1-24 1-24 152-K-A 200 gms. resin, 15 gms. hardener A 8.45 152-K-A 200 gms. resin, 15 gms. hardener A 8.45 152-K-A 152	Thermalloy Wakefield Description EACH						

	Stock Illetination Waketteld			บยร						
No.	Туре	Турв					1-24	25-49	50-Up	ı
957-0376 957-0379	4952			gms. resin, gms. resin,			8.45 7.80	6.76 6.24	4.00 4.05	
										Ш
HARDENERS		Stock		Mfr's	Net W		orking	PER	BOTTL	E

957-0410 957-0411 957-0412 957-0413 9.28 4.50 5.55 12.85 A4 B4 C4 .75 hour .50 hour

TYPE 296 SNAP-ON SINKS FOR TO-5

Minimum space type. Length, 1.25". Aluminum

Stock	Wfr's		Н.,	PER	PKG. OF	100
No.	Type	Finish	ln.	1- 99	100- 999	1000- Up
957-0066 957-0069 957-0073 957-0076	296-0-AP 296-1-AP 296-2-AB 296-3-AB 296-4-AB	Plain Plain Black Black Black	0.4 0.5 0.75 1.0 1.25	2.55 2.85 6.72 8.72 9.02	2.04 2.28 5.28 6.98 7.22	1.24 1.47 4.00 5.11 5.14



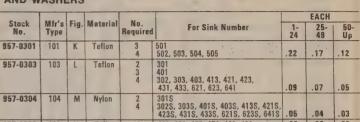


105

106 P

957-0305

957-0306



441, 451, 465, 476, 486, 489

4415, 4515, 4565, 4765, 4865, 4895 .07

Stock	Tuno	De-	EACH			
No. Type		scription	1- 24	25- 49	50- Up	
957-1610	250	1-oz. Tube 2-oz. Jar 1-lb. Can	1.95 3.28 12.65	1.15 2.10 8.45	1.05 1.75 6.75	

Teflon

Nylon

THERMAL JOINT COMPOUND

.39 .30 .23

enriched silicone grease material with high thermal con-ductivity. Removes air gap insulation between semiconductor case and heat sink



INSULATORS









BERYLLIUM OXIDE HEAT SINKS AND INSULATORS

High-purity beryllium oxide heat sinks conduct heat better than aluminum, yet insulate better than porcelain and have low capacitance.

On all	505-1-	1 121	For	Rated		Size i	n		EACH	
Stock No.	Mfr's Type	Fig.	Case	Volts		inche:		1-	50-	100-
140.	1 y po		Style	FUILO	L	W	Н	. 49	99	Up
957-2310	4005	S	TO-5	700	.36	.36	.03	1.25	58	.34
957-2300	4003	T	TO-3	800	1.56	1.05	.06	3.12	1.60	1.02
957-2340	4066	T	T0-66	800	1.25	.70	.06	2.38	1.36	.75
957-1100	B-470-235-40	R	10-32 Stud	700	.47	.47	.04	1.47	1.18	. 65
957-1120	B-800-320-62	S	1/4" Stud	800	.80	.80	.06	1.92	.92	.63

THERMAFILM I SEMICONDUCTOR INSULATORS

Replaces mica washers. Homogeneous film will not chip, fracture, peel or break. Dielectric strength, 7000 volts/mil; —260 $^\circ$ to $+400\,^\circ$ C. **Pkg. of 100.**

Stock	Mfr's		For		Size			Per Pkg./100		
No.	Type	Fig.	Case	i	n Inches		1-	25-	100-	
100.	1,40		Style	L	W	H	24	99	Up	
957-1540	43-05-1	S	T0-5	.39	.39	.002	12.50	9.80	6.00	
957-1530	43-03-3	T	T0-3	1.65	1.06	.002	8.75	6.00	4.00	
957-1570	43-66-1	T	T0-66	1.31	.76	.002	8.75	6.00	4.00	
957-1500	43-02-10	R	10-32 Stud	.562	.562	.002	7.50	5.00	3.00	
957-1510	43-02-25	R	1/4" Stud	.812	.812	.002	7.50	5.00	3.00	

THERMAFILM II SEMICONDUCTOR INSULATORS

Use where semiconductor case is 125°C or less. Will not chip, crack or peel like Mica. Superior chemical and abrasion resistance. Color is green.

Stock	Mfr's	r:-	For Case	Siz	e, Inch	es	Per Pkg. 100			
No.	Туре	Fig.	Style	L.	W	H	1-24	25-49	50-99	100-Up
957-6055 957-6060 957-6065 957-6070 957-6075	46-02-10 46-02-25 46-03-1 46-66-1 46-05-1	R R T T S	10-32 Stud 1/2" Stud 10-3 10-66 10-5	.39 1.65 1.31 .562 .812	.39 1.06 .76 .562 .812	.002 .002 .002 .002 .002	8.75 8.75 8.75 8.75 8.75	7.00 7.00 7.00 7.00 7.00	4.50 4.50 4.50 4.50 4.50	4.25 4.25 4.25 4.25 4.25

ORDERING INFORMATION (Suffix Letters for Mounting Type)

Mfr's Type	Std. Suffixes	Mfr's Type	Std. Suffixes
301	K. L. M. N. R	465	J and K
302, 303	K. L. M. N. R.	476	J. K and W
	MM and NN	486, 489	K only
401, 403, 413,	A. B.	490	J. K and W
421 or 423	KorV	601, 603	E. F. K. H1
431, 433	J and K	621, 623, 641	A, K and V
441	G and K	680	A. B. K. G1

FINAL SUFFIX S: When ordering heat sinks to accommodate Type 104 or 106 insulators, suffix S is added to Mfr's Type No. Wider, square bottomed slots required for these two insulators are positioned further from the end of the

Suf- fix	Mtg. Hole	Sut- fix	Mtg. Hole	Suf- fix	Mtg. Hole
A B E	T0-3 T0-36 .200" .270"	K L M	Blank 8-32 x ½" 10-32 x 5%" ¼-28 x 5%"	W Y Z G1 or	.765" 1.030" .765"
G	.330" .520"	R	.4975 ream	Hi	TO-66

MOUNTING PADS, LEAD CONVERSION PADS AND IC PADS



















































Top-quality nylon pads for best operation and easiest repair of printed circuit boards. Aid in cooling; prevent short-circuiting. Made of nylon per MIL-M-20593A.

			For	Milton		Size		Per Pkg	./100	
Stock No.	Mfr's Type	Fig.		Ross Equiv.	No. of Leads	in Inches O.D.xT	1- 24	25- 49	50- 99	100- Up
957-3640 957-3610 957-3650	7717-46N 7717-22N 7717-79N	EGE	TO-18 TO-5 TO-5	10222 10012 10079	3 or 4 3	.200x.060 .344x.075 .355x.038	7.50 7.50 7.50	5.50 5.50 5.50	4.00 4.00 4.00	3.00 3.00 3.00
957-3520 957-3550	7717-4N	F	TO-5	10214 10205N	3 or 4 .200 8-pin	.375x.075	7.50	5.50	4.00	3.00
957-3540	7717-7N 7717-19N	E	TO-18	10304	3 or 4	.375x.075 .250x.125 .500x.275	7.80 10.50 11.27	8.40 9.00	7.20 8.00	4.00 6.20 7.00
957-3590 957-3700 957-3510	7717-19N 7717-121N 7717-3N	CA	TO-18 TO-5	10194 10123	3 3 or 4	.300x.100 .344x.075	5.62 5.62	4.50 4.50	3.50	3.00
957-3560 957-3580		G	TO-5 TO-18	10245 10167	3 or 4 3 or 4	.350x.020 .200x.100	10.50 6.50	8.40 5.50	7.20 4.00	6.20 3.00

* Converts .200 to .100 grid. † Converts TO-18 to TO-5; § Converts .100 to .200 grid. † Converts .200 to .400 grid. Sold only in multiples of 100.

			For	Milton		Size		Per Pkg	1./100	
Stock No.	Mfr's Type	Fig.	Case Style	Ross Equiv.	No. of Leads	in Inches O.D.xT	1- 24	25- 49	50- 99	100- Up
957-3530 957-3500	7717-5N 7717-2N	F D	TO-5 Epoxy SC	10032	3 or 4	.350x.125 .305x.125	6.50 5.62	5.50 4.50	4.00 3.50	3.00
957-3710	7717-241N	Н	DIP-IC		16	.850x.450 x050	11.27	9.00	8.00	7.00
957-3720	7717-245N°	J	TO-5 DIP		8		11.27	9.00	8.00	7.00
957-3730	7717-246N	K	TO-5 IC		10 sq. pat.	x.156	11.27	9.00	8.00	7.00
957-3740 957-3750	7717-247N†		TO-5 TO-5		3	.280x.150 .300x.150	5.62	4.50 9.00	3.50 8.00	
957-3760	7717-252N	N	1C		8	.500x.350	11.27	9.00	8.00	7.00

2-sided cards for mounting up to 9 plug-in IC's. Tinplated G-10 glass epoxy, $\gamma_6{}''$ thick. Holes, .030" dia. Mates with 18-contact dble.-side connect. on .156" ctrs.;

Stock	Mfr's	Dimensions	EACH				
No.	Туре	(Inches)	1-9	10-24	25-Up		
954-0225	CO-13542	With Connector	15.37	10.25	8.31		

UNIVERSAL CIRCUIT CARD

TYPE 13500. Land pattern is compatible with standard .1" grid design. Circuit card has 233 mounting pads of one or more holes each, front and back, for a total of 444 holes per card; 22 fingers fit any stnd. plug-in, right-angle or swage-type connect. with .156" spacing. Hole size .052". Bgt. immersion tin finish. 4 x 4½". ½6" T.

54-4500.	Wt. 6	oz. 1-4	Ea.	10.62	5-9	 . Ea. 7.10
0-24						 Ea. 5.75

UNIVERSAL CIRCUIT CARD

TYPE 13510. Has transistor locating holes, grnd. bus down ctr., location for pad rows. Takes Elco 6007, Amphenol 143 connectors. 180 mtg. pads of 1 or more holes ea., front and back. 22 fingers for connectors with .156" spacing, 22 prs. of pads. Hole size, .052". Bright immersion tin finish. 4x4½"; ½" paper-epoxy. Wt. 3 oz.

54-4510. 1-4	Ea. 10.62	5-9	Ea. 7.10
0-24	Ea. 6.39	25-Up	Ea. 5.75

NON-SHIELDED PHENOLIC BLACK BOXES

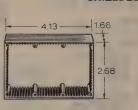
Phenolic black boxes. Unlimited uses for packaging of components and circuitry. Also Ideal for potting and encapsulating. Available in three sizes as shown below. Housing moided of thermosetting electrical grade phenolic. Cover; punched XXP laminated paper base phenolic. Color: black. Cover plate and #2-56 cover screws included. Operating Temperature: —25°C to +125°C.

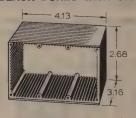


10

Stock	Mfr's	Dimensions	EACH				
No.	Type	LxWxD	1-9	10-24	25-49	50-Up	
885-0526 885-0527 885-0528	2103 2104 2105	2.25x1.00x1.00" 2.38x1.53x1.53" 1.75x1.44x.69"	1.70 1.70 1.70	1.36 1.36 1.36	.86 .86	.81 .81	

SHIELDED BLACK BOXES WITH CARD GUIDES







3301

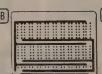
Aluminum "black boxes" slotted to accept ½,6-inch circuit boards and shielding dividers. Excellent for packaging electronic circuitry. Blue, baked enamel finish with anodized aluminum cover and screws. Fully shielded for RF applications. Oper-

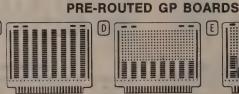
ating Temperature: -55°C to +150°C. Solder turret terminals. Working voltage, 500 peak. Noise rejection, greater than 70 dB. *Indicates unpainted finish. No center connections. Useable inside space: 4 x 2 x 1½". Av. shpg. wt: 2 oz.

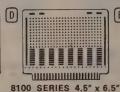
Stock	Mfr's	Conne	Connections		EACH			
No.	Type	1st End	2nd End	ExWxD	1-9	10-24	25-49	50-Up
885-0820 885-0825 885-0828 885-0828	3301 3306* 3311* 3312	None None None BNC Jack UG290A/U	None None None BNC Jack UG290A/U	4.13x2.63x1.66 4.13x2.63x1.66 4.13x2.63x1.66 4.13x2.63x3.16	10.65 10.65 12.34 16.09	8.50 8.50 9.85 12.85	7.65 7.65 8.87 11.57	6.38 6.38 7.39 10.39

CHASSIS MOUNTING















8000 SERIES 4.5" x 4.5"

Stock No.	Туре	Fig.	Circuit Sides	Edge Con- tacts	EACH
665-8001 665-8002	8001 8002	Α	1 2	36 72	11.95 12.95
665-8003 665-8004	8003 8004	В	1 2	36 72	11.95 12.95
665-8005 665-8006	8005 8006	c	1 2 .	22 44	11.95 12.95
665-8007 665-8008	8007 8008	D	1 2	22 44	11.95 12.95
665-8009 665-8010	8009 8010	E	1 2	22 44	11.95 12.95
665-8027 665-8028	8027 8028	F	1 2	22 44	10.95 11.95
665-8023 665-8024	8023 8024	G	1 2	22 44	12.95 13.95

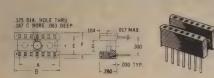
Stock No.	Type	Fig.	Circuit	Sides	EACH
665-8101 665-8102	8101 8102	A	1 2	.36 72	14.95 15.95
665-8103 665-8104	8103 8104	В	2	36 72	14.95 15.95
665-8105 665-8106	8105 8106	C	1 2	22 44	14.95 15.95
665-8107 665-8108	8107 8108	D	1 .	22 44	14.95 15.95
665-8109 665-8110	8109 8110	E	1 2	22 44	14.95 15.95
665-8127 665-8128	8127 8128	F	1 2	22 44	13.95 14.95
665-8123 665-8124	8123 8124	G	1 2	22 44	15.95 16.95

Fig.	Descriptions
Α	Universal Wire Wrap GP Board Universal Wire Wrap GP Board, RFI Shielding
В	High Density Wire Wrap GP Board High Density Wire Wrap GP Board, RFI Shielding
С	Universal Dual-In-Line GP Board Above with RFI Shielding on Component Side
D	Universal DIP with CSI Signal Cond. Area Above with RFI Shielding on Component Side
Е	14 Lead DIP/Pwr & Grd, CS1 Signal Cond. Area Above with RFI Shielding on Component Side
Е	Grid Drilled FR-4 Epoxy-Glass
G	Cut & Peel Plain Copper (1 Side) on Grid Epoxy Glass Cut & Peel Plain Copper (2 Sides) on Grid Epoxy Glass

Integrated Circuit and Transistor Sockets

IC AND PC ACCESSORIES

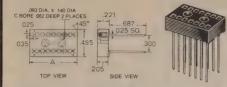
DUAL IN-LINE IC SOCKETS



D.I.P. Series. Bowed contacts provide .006 ohm max. resis. Accepts standard 14, 16 or 24 lead dual in-line IC pkg. with round or flat leads. 14-, 16-, 24-DIP have electrotin plated beryllium copper contacts; phenolic body; types with suffix-1 have gold plated beryllium copper contacts; di-allyl phthalate. Current, 1 amp; 1800 V rms between adjacent contacts, -65° to +150°C. 14-contact: .770x.424x3/yg" incl. leads; 16-cont.: .870 x.424x3/yg"; 24-cont.: 1.296x.746x3/yg". Av. shpg. wt. 1 02.

Stock	Mfr's	No.		EA	СН	
No. T	Type	Type tacts	1- 24	25- 49	50- 99	100- Up
750-1040 750-1041 750-1044 750-1045 750-1050 750-1051	14-DIP 14-DIP-1 16-DIP 16-DIP-1 24-DIP 24-DIP-1	14 14 16 16 24 24	.97 1.37 1.07 1.50 1.66 2.10	.71 1.00 .79 1.08 1.18 1.50	.59 .83 .66 .90 .99	.47 .66 .52 .72 .80

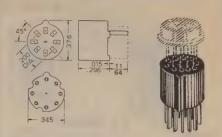
LOW PROFILE D.I.P. SOCKETS



Low profile wire-wrap dual-in-line sockets for use wherever vertical height is at a premium. Available in 14- and 16-pin contact sizes. Accept IC packages with flat or rolled leads and variation in thickness or diameter. 014/.019". Lead depth, 0.170". Dielectric housing of glass nylon (*black; twhite). Phosphor-bronze contacts (DIP-2, -3) types and plated actions. types gold-plated, others electrotinned). Shpg. wt. 2 oz.

Stock	Mfr's	Con-	EACH				
No.	Туре	tacts	1-24	25- 49	50- 99	100- Up	
750-0236 750-0237 750-0238 750-0251	14-W-DIP 14-W-DIP-1 14-W-DIP-2 14-W-DIP-3	14° 14† 14° 14†	.97 .97 1.37 1.37	.70 .70 1.01 1.01	.59 .59 .84 .84	.47 .47 .67	
750-0258 750-0259 750-0272 750-0273	16-W-DIP 16-W-DIP-1 16-W-DIP-2 16-W-DIP-3	16* 16† 16* 16†	1.10 1.10 1.56 1.56	.85 .85 1.21 1.21	.71 .71 1.01 1.01	.57 .57 .80	

6. 8. AND 10-LEAD IC SOCKETS



Sockets are specially designed for integrated circuits that mount in 6, 8 or 10-lead, T0-5 cases, Offers exceptionally convenient and simple means for installation and removal of integrated circuits. Also permit quick, trouble-free in-circuit testing and maintenance. Rugged, durable construction of diallyl phthalate. Average shpg. wt. 1 oz.

Stock	Mfr's	EACH				
No.	Type	1-24	25-49	50-99	100-Up	
750-0885 750-0860	6-ICS 8-ICS	.81 1.03	.54	.47 .55	.38	
750-1020	10-ICS	1.14	.72	.61	.52	

SUBMINIATURE SOCKETS

For test equipment, Instruments, radios and other electronic

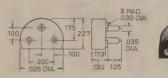




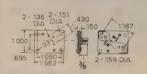
and other electronic apparatus which requires subminiature tubes. Molded, micafilled low loss phenolic; silver-plated beryllium copper contacts. Manufacturer's Type 2H5 may be used as a transistor socket or for four-prong tubes. Both type 1 oz. mounting ring. Av. shp. wt. 1 oz.

0. 1			Fig. Pins		EAC	:H	
Stock No.	Mfr's Type	Fig.		1- 24	25- 49	50- 99	100- Up
750-0819 750-0820	2H3 2H5	A B	3 5	.45 .40	.29	.25	.22

LO-PROFILE TO-5 SOCKET



POWER TRANSISTOR SOCKET





Type 2TS-1. Features laminated top and bottom plates for use under severe vibration conditions due to high initial withdrawal force. Transistor can be grounded to collector plate and be insulated from chassis at the same time. Top and bottom plates of XP phenolic, wax impreg. Formed threads for 6-20 screw. Shpg. wt. 3 oz. 750-0832, 1-24......Ea. 22 25-49.....Ea. 15 50-09.

50-99.....Ea..11 100-Up......Ea. .09

SOCKETS FOR SCR'S

3-contact nylon receptacle for I.R. IR106, Motorola MCR 406, G.E. C106. Nickel-silver contacts. 500 V rms. 5 amps. .200" center spacing. Press fits into cut-out. 2 oz.

			EA	СН	
Stock No.	Mfr's Type	1- 49	50- 99	100- 249	250- Up
713-2865	77-115	.44	.35	.22	.17



TRANSISTOR TEST SOCKET

100 to 200°C Test Temperature

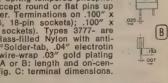
Type TS-187. Ideal for aging racks, incoming inspection, life testing, etc. Phenolic construction; beryllium copper contacts. Accepts .017" dia. transistor leads. Test temperature, 100°-200°C. I.R.: 105 megohms at 40% R.H. at 24°C. Shpg. wt. 3 oz.

885-0189.	1-24	Each 3.70	25-49	Each 2.9
50-Up				Each 1.8

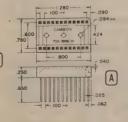


DUAL IN-LINE IC SOCKETS

Molded diallyl phthalate insulators withstand high temperatures. Spring-tempered phosphor bronze contacts accept round or flat pins up to .024" in diameter. Terminations on .100" x .300" grid (14, 16, 18-pin sockets); .100" x .600" (24, 36-pin sockets). Types 3777- are 1-piece molded glass-filled Nylon with anti-moisture bosses. *Solder-tab, .04" electrotin terminals; others wire-wrap .03" gold plating over copper. Fig. A or B; length and on-centers dimensions; Fig. C; terminal dimensions.



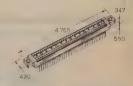
				EACH			
Stock No.	Mfr's Type 703-	Fig.	Con- tacts	1- 9	10- 49	50- 99	100- Up
746-0896 746-0898 746-0904 746-0915 746-0916	3777-01-0312 3777-01-0412 3788-01-0416 3897-01-0316 3898-01-0316	A, C A, C A, C A	14° 14° 14° 14	1.55 1.00 1.23 1.60 1.77	1.24 .80 .98 1.28 1.42	1.01 .67 .82 1.06 1.15	.88 .57 .70 .91
746-0905 746-0902 746-0912 746-0906 746-0914	3789-01-0416 3787-01-0416 3895-01-0316 3790-01-0416 3896-01-0316	A, C A, C A B, C B	16° 18° 18 24° 24	1.33 1.50 2.12 2.45 3.17	1.06 1.20 1.70 1.96 2.54	.88 1.00 1.40 1.63 2.06	.76 .86 1.20 1.40 1.78
746-0907 746-0911	3791-01-0416 3893-01-0316	B, C B	36° 36	3.18 4.00	2.54 3.20	2.12	1.81



	099
300 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	094 04 Dan L.150
250 + .500 -	
.650	.025
826	100 110

80-PIN DUAL IN-LINE SOCKET STRIP

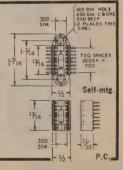
Type 703-100-01-04-00. For mounting dual in-line devices without a PC board. Molded diallyl body with .025" sq. wire-wrap posts and spring contacts, electro tin plated. Flanges at ends provide for independent mounting or into mounting frames or relay rack drawers. Socket strip accepts five 14-pin dips or four to five 16-pin dips. 746-0870. 1-9. Ea. 9.12 10-99. Ea. 6.00 100-Up. Ea. 5.30



DUAL IN-LINE INTEGRATED CIRCUIT SOCKETS

Especially designed for 14 and 16 pin in-line hybrid integrated circuit packages having .100" x .300" grid spacing. Easily accommodates round or flat pin configurations. Body molded of general purpose phenolic plastic. Shpg. wt. 2 oz.

					EA	CH	
Stock No.	Mfr's Type	No. of Contacts	Body Mount	1- 49	50- 99	100- 249	250- Up
920-6252 920-6253	6252 6253	14 16	P.C. P.C.	.81	.65 .65	.54 .54	.46



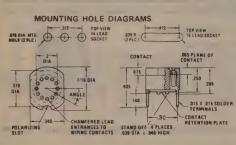
Sockets, Socket Adapters and Accessories

PRODUCTION SOCKETS



SERIES 821-200 EJECTION HOLE 30 14 COB (MA) PLAME OF CONTACT 197 200 DED .30 0000000

SERIES 821-250 CHAMFERED LEAD COVER 000 -TERMINALS WIRE WRAP



SERIES 821-200 DUAL-IN-LINE

High refiability production mounting sockets for dual-in-line IC devices. They are most useful in production applications where it is desirable to provide easy replacement of individual DIP devices without the risk of unsoldering them from PC boards or the expense of replacing entire boards. Single-piece construction; dual wiping action contacts for round or flat leads. Replaceable contacts in case of damage. Front entry chamfered-maximum lead-in. Snap-on insulated lid for ease of contact replacement. W-w indicates Wire Wrap terminals. *indicates phosphor bronze contacts; all others beryllium copper. Dimension A: 14-pin, 6:00"; 16-pin, 7: 18-pin, 8. Dimension B: 14-pin, 6:00"; 16-pin, 7:705"; 18-pin, 800". Dimension C: 14-pin, .695"; 16-pin, .795"; 18-pin, .895".

Stock	Mfr's	Con-	Toumi	EACH			
No.	Type		Con- Termi- tacts nais		25- 99	100- Up	
713-8508	821-20011-144	14*	W-W	.74	.58	.38	
713-8510	821-20011-164	16*	Tab	.87	.70	.45	
713-8512	821-20012-144	14	Tab	.87	.64	.45	
713-8514	821-20012-164	16	Tab	1.01	.80	.50	
713-8516	821-20013-144	14	W-W	1.14	.92	.63	
713-8518	821-20013-164	16	W-W	1.25	1.00	.70	
713-8520	821-20041-184	18	W-W	1.60	1.28	.75	
713-8522	821-20042-184	18	Tab	1.04	.82	.51	

SERIES 821-250 DUAL-IN-LINE

Construction as above. *Solder term.; †Wire Wrap. Dim. ''D'': 14-pin, .630"; 16-pin, .730". Dim. ''E'': 2 %4" except wire-wrap term., 1 %6".

Stock	Mfr's	Con-	Dimen. (In.)				EACI	4
	Type 821-	tacts	"A"			1- 24	25- 99	100- Up
713-8502 713-8504	25011-144 25011-164 25012-144 25012-164	14* 16* 14† 16†	.795 .895 .795 .895	.412	.700	.88 1.00 1.10 1.22	.70 .86 .88	.55 .63 .64 .73

831-55011 AND 831-55022 TO-CAN

Durable nylon; holds TO-5 cans in firm, long-time contact. Resists dirt and environmental attacks.

SERIES 831-55011

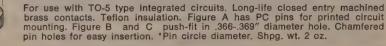
Stock	Mfr's	Com	EACH			
No.	Туре	Con- tacts	1-	25- 99	100- Up	
713-8536 713-8538	831-55011-034 831-55011-044	3 4	.63	.50	.32	

SERIES 831-55022

Stock	Mfr's	C44-	A	EACH			
No.	Type	Contacts	"A"	1-24	25- 99	108- Up	
713-8524	831-55022-034	3	90°	.63	.50	.32	
713-8526	831-55022-044	4	90°	.68	.54	.35	
713-8528	831-55022-064	6A	45°	.72	.58	.39	
713-8530	831-55022-084	8	45°	.84	.68	.41	
713-8532	831-55022-104	10	36°	.98	.78	.47	
713-8534	831-55022-124	12	30°	1.06	.86	.63	

SERIES 8100 INTEGRATED CIRCUIT SOCKETS

• Chamfered Lead Holes for Easy Insertion • Closed Entry Beryllium Contacts



346	B +400+
C	268

H- 400 -

							EAG	CH	
Stock	Mfr's	Fig.	Cont.	*Dia.	Con-	1-	25-	50-	100-
No.	Type		Term.	In.	tacts	24	49	99	Up
957-5001	8133TE308	BBBCC	Solder	.200	8	1.75	1.55	1.30	1.14
957-5002	8144TE310		Solder	.230	10	2.13	1.89	1.60	1.40
957-5003	8151TE312		Solder	.280	12	2.53	2.24	1.88	1.64
857-5004	8145TE310		PC	.230	10	2.13	1.89	1.60	1.40
957-5005	8134TE308		PC	.200	8	1.75	1.55	1.30	1.14
957-5006 957-5007 957-5008 957-5009 957-5010 957-5011	8142TE310 8139TE308 8138TE308 8131TE308 8136TE308 8149TE312	A C B A A A	PC PC Solder PC PC PC	.230 .230 .230 .200 .230 .230	10 8 8 8 8	2.13 1.75 1.75 1.75 1.75 2.50	1.89 1.55 1.55 1.55 1.55 2.22	1.60 1.30 1.30 1.30 1.30 1.88	1.40 1.14 1.14 1.14 1.14 1.64

DUAL-IN-LINE SOCKETS



Rugged molded polysulfone, for long term test temperatures from -65° to +150°C. Excellent wear characteristics and extremely low leakage. Contacts are 1-pc. beryllium copper, nickel/gold plated; provide gentle wiping action for low, uniform contact resistance. Contacts designed for minimal insertion and withdrawal force. †With mounting flange.

	No. EACH						
Stock No.	Mfr's Type	Fig.	of Lead:	Mount- s ing	1-	25- 99	100- Up
713-8409	621-01011-161 621-01012-141 621-01012-161	A		PC Chassis• Chassis•	3.95 3.54 3.95	3.16 2.84 3.16	1.85 1.69 1.85
713-8411	621-10011-401	В	30	PC	15.39	11.09	8.18

COMPONENT SOCKET ADAPTERS



Plug into standard 14, 16, 24 or 36-pin dual In-line sockets or IC strip. Larger widths straddle 2 sockets. Slotted brass ter., QQB-626C copper, gold plating over gold flash per MiL-G-45204, GEE Glass Epoxy MIL-P-18177 board, .062". *Terminals. 2 oz.

Stock	Mfr's Type		ard n.)		ninal r. ings	No.	1-	EACH	50-
No.	702-	W	L	W	L	*	9	49	Up
746-0811 746-0812	3723-01-03-00 3724-01-03-00 3725-01-03-00 3726-01-03-00	.950 .450		.300 .800 .300 .800	.200	8	1.35 2.02	1.08 1.08 1.62 1.62	.80 1.20
746-0817	3728-01-03-00 3730-01-03-00 3732-01-03-00	.950		.300 .800 .600	.100	16	2.42	1.94	1.43

WIRE-WRAP 70-PIN CARD CONNECTOR

Flat base provides firm platform for ac-curate mounting of connector to power planes. Type 7015, wire-wrap pins; Type 7029 has solder tab pins. Wt. 3 oz.

Stock	Mfr's	EACH					
No.	Туре	1- 9	10- 24	25- 99	100- Up		
746-0935 746-0937	706-7015-01 706-7029-01	14.00 13.12	11.20 10.50	9.33 8.76	8.00 7.50		





Type 706-1020-01. IC Tester. Plugs down over top of in-use 14-pin IC, provides test points. 746-0930. 1-9..Ea. 3.60 10-24..Ea. 2.88 25-Up..Ea. 2.40

B Type 706-3739-01. IC Insertion/Extraction Tool. 746-0933. 1-9....Each 1.87 10-Up.....Each 10-Up..... Each 1.50

Each 52.43

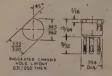
POWER TRANSISTOR SOCKET



For use with transistors having a TO-3 case. General purpose phenolic with phosphor bronze contacts, gold over silver plated. Mounting plate with 6-32 tapped holes. Sold in packages of 100

Stock	Mfr's	For	PER PKG.	OF 100
No.	Туре	Case	1-9	10-Up
920-6266	6266	T0-3	27.00	20.83

TRANSISTOR SOCKETS



Snap-in type transistor sockets for TO-5 and TO-18 cases. Also accepts 3 and 4 lead plus 3 lead inline transistors. Phosphor bronze, cadmium plated contacts with polysulfone body. Sockets fit in "D" shape hole.

Stock	Mfr's	For	PER PKG.	OF 100
No.	Type	Case	1-9	10-Up
920-6264	6264	TO-18	15.00	11.57
920-6265	6265	TO-5	15.00	11.57

IC AND PC ACCESSORIES

Circuit Boards and Plugboards

MICRO-VECTORBORD® PRE-PUNCHED CIRCUIT BOARDS

These circuit boards are fire-retardant electrical grade laminate pre-punched with 0.042" or 0.025" holes located on convenient centers for installation of DIP integrated circuits, "flat-packs", discrete components and solder type or wrapped wire terminals. Circuit boards may be sawed, punched or drilled if required. Last three digits in Mfr's part number indicate board thickness. Suffix C1

indicates 2 oz. copper-clad (one side) Type FL-GF per MIL-P-13949E, NEMA grade FR-4 and G-10. Other epoxy glass boards are Type GEE per MIL-P-181776, NEMA grade FR-4 and G-10. Epoxy paper boards (Suffix EP) are Type PEE per MIL-P-22324, NEMA grade FR-3. Phenolic boards (Suffix XXXP) are NEMA grade FR-2. Ten different sizes available from 6x2 to 17x8½. Shpg. wt. 2 oz. each.

Stock	Mfr's	Size,			EACH					
No.	Type	LxW Inch	Pattern	1- 9	10- 24	25- 99	100- Up			
977-1196 977-1197 977-1212 977-1215	59P19-032 59P44-032 64P44-062 64P44-062EP	6x2 6x4½ 6½x4½ 6½x4½	P P P	1.33 2.43 2.68 2.53	1.06 1.94 2.14 2.02	.88 1.62 1.78 1.68	.78 1.39 1.53 1.44			
977-1217 977-1218 977-1255 977-1259	84P44-062 84P44-062EP 169P44-062 169P44-062C1	8½x4½ 8½x4½ 17x4½ 17x4½	P P P	3,32 3,15 6,55 8,82	2.66 2.52 5.24 7.06	2.22 2.10 4.37 5.89	1.90 1.80 3.74 5.04			
977-1260 977-1261 977-1263 977-1265	169P44-062EP 169P47-062EP 169P59-032 169P59-047	17x4½ 17x4.8 17x6 17x6	P P P	5.75 5.75 8.68 8.82	4.60 4.60 6.94 7.06	3.83 3.83 5.78 5.89	3.28 3.28 4.96 5.04			
977-1266 977-1267 977-1268 977-1244	169P79-062 169P84-062 169P84-062EP 126M76-032	17x8 17x8½ 17x8½ 6½x4	P P P M	11.52 11.97 10.17 3.43	9.22 9.58 8.14 2.74	7.10 8.00 6.80 2.28	6,58 6,84 5,81 1,96			

0.05 PATTERN "M" .025 DIA. PATTERN "P" .042 DIA.

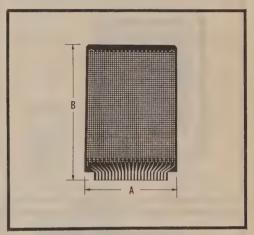
-0.05

IC AND DISCRETE-MOUNT PLUGBOARDS

These plugboards offer maximum mounting flexibility for IC's, discrete components, DIP packaged devices, pins and pin sockets. 0.042" holes on 0.1" centers, 0.1" holes for ejectors. Nickel gold plated contacts except those marked † which have tinned contacts. Connections to

contacts readily made by soldering wires to contact pad or installing contact solder lug. Materials meet same specifications as Micro-Vectorbord® above. Completely wired plugboards may be mounted in Vector card or module cases and cages.

Stock	Mfr's	А	В	Board			Contacts		Mating		EA	СН	
No.	Type	. ^	В	Mat'l	Total	1 or 2 Sides	Type Spac-		Receptacle	1-9	10-24	25-99	100-Up
977-1399	3662	41/2	61/2	Epox. Glass	44	2	Etched	.156	R644 or R644-1	10.95	8.76	7,30	6.26
977-1398	3662-1	41/2	61/2	XXXP Phen.	44	2	Etched	.156	R644 or R644-1	7,73	6.18	5.15	4.41
977-1401	3662-2	41/2	9.6	Epox. Glass	44	2	Etched	.156	R644 or R644-1	14.88	11.90	9.93	8.50
977-1421	3662-5	41/2	41/2	Epox. Glass	44	2	Etched	.156	R644 or R644-1	8.92	7.14	5.96	5.10
977-1400	3673	7.88	9.6	Epox. Glass	80	2	Etched	.100	Amphenol 261	19.86	15.88	13.23	11.34
977-1422	.†3797	2.73	41/2	Epox, Paper	30	2	Etched	.156	R630	5.65	4.52	3.77	3.22
977-1423	†3797-1	2.73	41/2	XXXP Phen.	30	2	Etched	.156	R630	4.95	3.96	3.30	2.82
977-1424	3795-2	2.73	41/2	XXXP Phen.	44	2	Etched	.100	R644-1	4.27	3.42	2.85	2.44
977-1415	3719-1	41/2	61/2	Epox. Glass	72	2	Etched	.100	R636	11.18	9.44	7.87	6.74
977-1425	3719-4	41/2	9.6	Epox. Glass	72	2	Etched	.100	R636	14.55	11.64	9.72	8.31
977-1426	3719-5	41/2	41/2	Epox. Glass	72	-2	Etched	.100	R636	14.55	11.64	9.72	8.31
977-1330	848PWE	41/2	61/2	Epox. Glass	35	.ĩ	Elco-Varicon	.100	R635	10.77	8.62	7.20	6.15
977-1331	837PWE	3	41/2	Epox. Glass	12	1	Elco-Varicon	.2	R612-1	6.65	5.32	4.44	3.80
977-1427	3795	2.73	41/2	Epox. Glass	44	2	Etched	1.1	R644-2	6.52	5.22	4.35	3.72

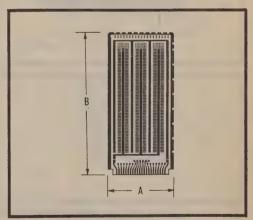


UNIVERSAL D.I.P. PLUGBOARDS

Universal mounting for DIP's, transistors and discrete components. 2 oz. copper clad on two sides of flame retardant 0.062" type FL-PH per MIL-P-13949D epoxy glass. 0.042" holes on 0.1" centers, tinned oval shaped pads. Holes accept Vector solder Push-In, wire-wrappable,

socket-pin or inbord terminals. Bus strips interlaced between pads. Etched contacts on .156" centers, 22 each side. Completely wired plugboards may be mounted in Vector card or modules cages. Gold, nickel-plated contacts. 0.1" ejector holes. 3 oz.

Stock	Mfr's					Co	ntacts		Mating	EACH			
No.	Туре	A	В	88 m4/1	Total	1 or 2 Sides Type Spac- ing		Receptacle	1-9	10-24	25-99	100-Up	
977-1402 977-1403 977-1430 977-1431	3677 3677-2 3795-1 3795-3	4½ 4½ 2.73 2.73	9.6 6½ 4½ 4½ 4½	Epox. Glass Epox. Glass Epox. Glass Phenolic	44 44 44 44	2 2 2 2	Etched Etched Etched Etched	.156 .156 .100	R644 or R644-1 R644 or R644-1 R644-2 R644-2	14.83 13.25 8.32 5.18	11.86 10.60 6.66 4.14	9.88 8.83 5.56 3.45	8.47 7.57 4.76 2.95
977-1432 977-1433 977-1434	3797-2 3797-3 4112-4	2.73 2.73 4½	4½ 4½ 6½	Epox. Paper Phenolic Epox. Glass	30 30 44	2 2 2	Etched Etched Etched	.156 .156 .156	R630 R630 R644 or R644-1	7.80 5.62 19.42	6.24 4.50 15.54	5.21 3.76 12.97	4.45 3.21 11.10

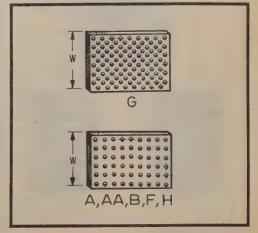


PREPUNCHED BOARDS

Vectorbord® prepunched terminal board. Electrical grade laminate with holes located on various centers. May be sawed, punched or drilled. Push-in terminals available. No suffix letters indicate phenolic, XXXP per MIL-P-31158; suffix EP—epoxy paper, EXXXP per MIL-P-22324; suffix WE—epoxy glass, G-10 per MIL-P-18177. Patterns

A, B, F, G and H are 1/16" thick, AA, 3/32" t. Patterns A, AA: .093" holes on .265" grid. B: .062" holes on .188" grid. F: .062" holes on .2" grid. G: .062" holes on staggered .1" grid. H: .062" holes on .1" grid. All 17" long except *8½". T9.4, T28 terminals fit A and AA. T28, T28S1, T32A-1 fit B, F, G and H. Av. shpg. wt: 5 oz.

Stock	Mfr's	w	Pattern	No.		EA	СН	
No.	Type	in.	Pattern	Holes	1-24	25-99	100-299	300-Up
977-1232	85G24	4.8	A	(85x23)x2	2.37	1.90	1.58	1.35
977-1233	85G24EP	4.8	G	(85x23)x2	3.59	2.74	2.28	1.96
977-1175	32AA18	4.8	AA	32x18	1.37	1.08	.90	.77
977-1136	18A18	4.8	A	18x18	.60	.48	.40	.34
977-1201	64A18	4.8	A	64x18	2.05	1.62	1.35	1.16
977-1206	64AA18	4.8	AA	64x18	2.65	2.08	1.73	1.49
977-1174	32AA9*	2 ⁷ /16	AA	32x9	.95	.76	.63	.54
977-1204	64A18WE	4.8	A	64x18	6.00	4.64	3.87	3.31
977-1234	85G24WE	4.8	G	(85x23)x2	6.20	4.68	3.97	3.40
977-1228	85F24EP	4.8	F	(85x23)x2	3.59	2.72	2.28	1.96
977-1207	64AA18EP	4.8	AA	64x18	4.80	3.66	3.05	2.61
977-1188	42G24WE*	4.8	G	(42x23)x2	3.07	2.36	1.97	1.69
977-1194 977-1238 977-1208 977-1236	45B30* 90B30 64AA32 85G42EP	5 5 8½ 8½ 8½	B B AA G	45x30 90x30 64x32 (85x41)x2	1.35 2.95 4.50 6.15	1.08 2.36 3.56 4.74	.90 1.97 2.97 3.95	1.69 2.54 3.39
977-1237	85G42WE	8½	G	(85x41)x2	8.60	6.76	5.63	4.83
977-1271	170H48WE	4.8	H	47x169	6.60	5.08	4.23	3.63
977-1272	170H48WE-032	4.8	A	47x169	5.80	4.64	3.87	3.31
977-1273	170H85WE	8½	H	84x169	13.55	10.84	9.05	7.74



IC AND PC ACCESSORIES

Circuit Boards, Terminals and Accessories

For 14-lead dual-in-line integrated circuits (or 16 or

MATRIX TYPE PLUGBOARDS

61/2 Matrix Type Plugboards 3719-3 - 41/2

THE PERSON NAMED IN COLUMN 1

Flugboards Wire Wrapping

R616-1

3690

material meet same specifications as Micro-Vector-bord. Contacts are nickel plated gold flashed. Connec-tion between board sides can be made with Vector terminals. Line cutter P-139 (listed in chart below) can be used to break conductor lines. Mating receptacles are listed in chart below. Av. wt. 3 oz. more leads by cutting additional pad areas. Have 0.042" holes in 0.1" centers. Boards with X-Y matrix have parallel 0.070" wide 2-oz. copper tinned lines running lengthwise on one side, horizontal on reverse side. † Models have aluminum Dardej frame. Board Each Matrix Dimensions Mating Receptacle 1-9 10-24 25-99 100-Up Total 1 or 2 Type Sides Α В Type 10.50 9.00 8.10 6.93 9.95 8.51 8.93 7.66 8.93 7.66 9.95 8.51 9.52 8.14 9.70 11.92 10.72 10.72 11.92 11.40 †3474 †3474-3 †3477 †3477-8 3719-2 3719-3 4050-1 Epox. Paper Epox. Paper Epox. Paper Epox. Glass Epox. Glass R644 or R644-1 R636 R636 R636 R644 or R644-1 977-0682 P-139 Line Cutter Tool 5.78 4.82 4.13

PLUGBOARDS FOR WIRE WRAPPING

Plugboards listed below have vertical running buses Plugboards listed below have vertical running buses specially arranged for user preferring to install wire wrappable sockets and pins. Buses are heavy tinned 2-oz. copper and may be assigned voltages as required. Supplemental busing may be added with new double overhead trolley bus which can drastically reduce inductance, noise, spurious signals and transients and increase current capacity. Accessory wire wrappable socket nins terminal pins spring hus lines are listed socket pins, terminal pins, spring bus lines are listed

elsewhere. Models 4066-4 and 3682-4 have an overall ground plane on the back of the board for maximum circuit performance. Isolation pads in the ground plane surround each hole so terminal grounding does not occur unless "strapping" is done. Boards meet same specifications as Micro-Vectorbord and are provided with two 0.1" ejector holes. Mating connectors are listed. Wired plugboards may be mounted in card or module cages. Average shpg. wt. is 3 oz.

Stock	Mfr's	Dime	nsions	Board		Co	Contacts		Mating	Each			
No.	Type	A	В		Total	1 or 2 Sides	Type	Spac- ing	Receptacle	1- 9	10- 24	25- 99	100- Up
977-1404 977-1405 977-1406 977-4008	3682 3682-2 3682-4 4066-4	4½ 4½ 4½ 4½ 4½	9.6 6½ 6½ 6½	Epox. Glass Epox. Glass Epox. Glass Epox. Glass	44 44 44 72	2 2 2 2	Etched Etched Etched Etched	.156 .156 .156 .10	R644 or R644-1 R644 or R664-1 R644 or R644-1 R636	14.25 12.72 13.87 19.42	11.40 10.18 11.10 15.54	9.52 8.50 9.26 12.98	8.14 7.27 7.92 11.10

PLUGBOARD RECEPTACLES

R612-1, R616-1 and R635 have combination solder tab/ taper tab contact. R630 and R644 have solder tab con-tact. R644-1 has 0.031" x 0.062" w.w. contact tail ¾" long. R644-2 has 0.025" sq. tail 0.56" long. R636 has 0.025 sq. tail 0.60" long. † Amphenol 261 has .025" sq. w.w. tail. * Elco Varicon. Average shpg. wt. 3 oz.

Stock	Witr's	No.	Ctrs.	Style For	La	ch
No.	Type	Cts.			1-24	25-Up
977-0782	R636	72	.100	4066-4; 3477-7; 3477-8; 3719-2: 3719-3	9.15	7.32
977-0770	†261	80	.100	3673	6.25	5.00

COPPER CLAD TERMINAL BOARDS

Stock	Mfr's	No.	Ctrs.	Style For	Ea	ch
No.	Туре	Cts.		,	1-24 2	5-Up
977-0777 977-0779 977-0780	*R612-1 *R616-1 R630	12 16 30	.2 .2 .156	837; 837WE 812; 812WE 3797; 3797-1; 3797-2; 3797-3	4.65 5.73 3.47	3.52 4.58 2.78
977-0781	*R635	35	.1	848WE; 848PWE; 2536WE	10.45	8.36
977-0783	R644	44	.156	838; 838A; 838AWE; 838PWE; 838WE; 3662; 3662-1: 3682;	3.58	2.86
977-0784	R644-1	44	.156	3682-2; 3682-4; 4112-4; 3474; 4050-1	5.45	4.36
977-0785	R644-2	44	.100	3795; 3795-1; 3795-2: 3795-3	5.28	4.22

OOT I EIT OLAD I EITIMITAL DOATED												
Prepunched and unpunched boards. Suffix C1 is phenolic NEMA Grade FR-2 with 1 oz. (0.0014) thick one side. C2 is same but both sides clad. WEC1 is epoxy glass type FL-GF per MIL-P-13949E NEMA grade FR-4 and G-10. Patterns "F" and "G" have 0.062" holes, .2" and staggered1" grid respectively, for Type T28 Push-In terminals, ½" thick, 4½" wide. Average shpg. wt. is 6 oz.												
Stock	Mfr's		W	Pat-		Eacl	h					
Stock Mil S L W Fat-												
No.	Туре	in.	in.		1-24	25-99	100-Up					
977-1180	Type 42F22C1	81/2	in.	tern	1.63	1.30	1.08					
	Туре		in.	tern		1.30 1.72	1.08 1.43					
977-1180	Type 42F22C1	81/2	in.	tern	1.63	1.30 1.72	1.08 1.43					

CARD EXTENDERS

Use in racks or cabinets to extend cards for easy access when testing. All extenders listed are 1/6" thick epoxy glass and have 2-oz. copper contacts with nickel or gold plating on tips. Furnished with and without mounted receptacle. Average shpg. wt. is 8 oz. When ordering, be sure to specify stock no.

Stock	Mfr's	D	imens	sions		Contact Strips	Rec.		Ea	ch	
No.	Туре	Α	В	C	D		Sup.	1-9	10-24	25-99	100-Up
977-1409	3690	61/2	41/2	3.6	.46	22, .156" ctrs.	R644		11.34	9.45	
977-1410	3690-I	61/2	41/2	3.6	.46	22, .156" ctrs.	None	6.38	5.10		
977-1411	3690-2	11	41/2	3.7	.40	36. 0.10" ctrs.	R636	21.75	17.40	14.52	12.42
977-1413	3690-3	11	41/2	3.7	.40	36, 0.10" ctrs.	None	10.87	8.70	7.26	6.21
977-1414	3690-4	71/2	41/2	3.7	.40	36, 0.10" ctrs.	R636	19.42	15.54	12.98	11.10
977-1418	3690-6	11	41/2	3.6	.46	22, .156" ctrs.	R644	19.35	15.48	12.25	11.08
977-1419	3690-8	51/2	2.73	2.3	.22	22. 0.10" ctrs.	R644-2	14.18	11.34	9.46	8.10
977-1420	3690-10	51/2	2.73	2.5	.12	15, .156" ctrs.	R630	6.37	5.10	4.25	3.64

PLUGBOARDS FOR MOUNTING DISCRETE COMPONENTS

Use for test circuits, P.C. prototypes, short runs. ${\cal H}_6{''}$ thick epoxy paper, EXXXP per MIL-P-22324 except ° epoxy glass Grade type GEE per MIL-P-181776 FR-4 and G-10, or type FL-GF per MIL-P-13949E FR-4 and G-10. Grid of 0.062" holes on alternate 0.1" centers.

"GN" models with etched contacts have 2 oz. copper, nickel gold plated contacts on 0.156" centers terminating in pad around terminal hole. Others have 2-oz. copper tinned contacts. Models with non-equal A and B dimensions have offset connector tongue. Wt. 3 oz.

41/2 51/2 812 #3,42445,42 14244214244 HAR SONA 838PWE

PLUGBORDS WITH INSTALLED VARICON CONTACTS

Stock	Mfr's	Size.	Con-		Each						
No.	Туре	Inches	tacts	1-24	25-99	100-499	500-Up				
977-1305 977-1306 977-1310 977-1328	812 *812WE - *837WE *848WE	4½ x6½ 4½ x6½ 3x4½ 4½ x6½	16 16 12 35	4.90 5.57 4.12 9.57	3.58 4.24 3.10 7.30	2.98 3.53 2.58 6.08	2.55 3.01 2.21 5.21				

ETCHED CONTACT PLUGBORDS

Stock	Mfr's	No. Co	No. Contacts		ı. İn.	Each				
No.	Type	Front	Back	A	В	1-24	25-99	100-499	500-Up	
977-1312 977-1324 977-1322 977-1313 977-1314 977-1317 977-1320	838 838-1 †838WE-1GN 838A 838A-1 838AWE †838AWE-1GN #838PWE	22 22 22 22 22 22 22 22 22	21 21 21 - -	.408 .453 .453 .408 .453 .408 .408	.508 .453 .453 .508 .453 .508 .508	6.12 6.12 9.19 4.43 4.43 5.00 7.40 6.32	4.66 4.66 6.98 3.54 3.54 3.80 5.92 4.82	3.88 3.88 5.82 2.95 2.95 3.17 4.93 4.02	3.33 3.33 4.99 2.53 2.53 2.71 4.23	
977-1321	838WE	22	-	.408	.508	6.07	4.64	3.87	3.44 3.31	





Klip-Strip Kit 33X. Use with Kit 34X below. Contents: 125, 4 contact quads. 4 Klip-Strip Bus pieces, 48 contacts each. 2, 8-quad Klip-Bloks. 1 board, 4½ x 8½ x ½ ½ with .042" dla. holes on .1" centers. Foam Support block. 25 adapter pins. Mounting pins. Installing tool, removal prod, cutter-stripper tool. 25' bare and 25' insulated #22 solid tinned copper wire. Miscellaneous pins and complete instructions.

977-5000. 1-9...27.97 10-24...23.92

Klip-Blok Kit 34X. Use with Kit 33X above. Contents: 8, 8 quad Klip-Bloks w/mtg. pins. 2, 8-quad Klip-Bloks wo mtg. pins. 4, 24-quad Klip-Bloks. 8 single quad Klip-Bloks. 2 Klip-Strip Bus pieces, 48 contacts each Klip-Strip removal tool. Removal prod. Mounting pins. Miscellaneous pins and complete instructions. 977-5005. 1-9...49.60 10-24...42.42

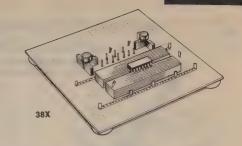
Evaluation Kit 38X. Sample assortment. Includes 4 x $4\frac{1}{2}$ x $\frac{1}{16}$ " Vectorbord ® chassis. 2 tinned bus strips. 20, soliderable push-in terminals. 4 adapter terminals for oversize leads. 6 solderless 4-quad Klip-Strips. Complete

977-5010. 1-9...10.02 10-24...8.00 **84P44-062EP.** 1 side copper clad Vectorbord $^{\circledcirc}$, $4\frac{1}{2}$ x $8\frac{1}{2}$ x $\frac{1}{6}$ ". .1 x .1" grid on .042" holes. Shpg. wt: 00 oz. 977-5015. 1-9....3.15 10-24....2.30 25-Up ...2.18

P138C. Copper Pad Cutting Tool. Cuts copper-free .125" dia. circle around holes in Vectorbord. Shpg. wt: 00 oz. 977-5016. Each.......3.48 3-Up.........2.78

063

.093 .690

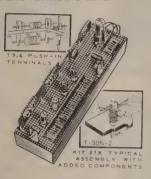


Klip Components

Stock No.	Mfr's Type	Description	Pkg. Size	Price EACH
977-5017 977-5018	T66-32 T66-96	8-Quad Blok w/mtg. pins 24-Quad Blok w/mtg. pins	4 4	7.42 8.92
977-5019 977-5020	T45-4 T45A-4	Quad Klip-Strip (Pins mntd) Quad Klip-Strip w/o pins	16 16	3.42
977-5021 977-5022	T45-32 T45-48	Bus-32 cont. quads (128 pts) Bus-48 cont. quads (192 pts)	2	3.42
977-5023	P154-1	Insertion/Removal Tool Foam Mounting Block	1	3.65
377-3024	1417 100-00	Today Woodleing Diock		2.33

EXPERIMENTERS' CHASSIS KITS

Include push-in terminals, perforated XXXP phenolic decks, aluminum supports, T-30N-2 installation tool, spring pusher tool, hardware. Terminals: T-9.4 with Insert tool (push-in type require soldering); T-30N-2 ("springless terminals and speed wiring. Each pair of small decks* is: 1%x1233x332" and 12332 x812x342". All kits except 20X include layout paper, brackets screws and nuts



0. 1				3864		EA	CH			
Stock No.	Mfr's Type		Î	Wt.	1- 24	25- 99	100- 299	300- Up		
977-1150 977-1152 977-1154 977-1155 977-1159	21 X 22 X 22 X A	4¾x8½ 4¾x17 4¾x8½ 8½x17 8½x17	2 2 2	1 2¾ 1¼ 3½ 3½ 3½	9.32 23.78 16.76 38.86 30.16	7.77 19.82 13.97 32.38 25.13	6 66 16.99 11.97 27.76 21.54	5.83 14.86 10.46 24.29 18.85		
INBORD TERMINAL PINS, RETAINERS, TOOLS Terminal pins listed below press fit into Micro-Vectorbord® and serve as wiring points, test points, feed thru or male connector pins. Retainers may be used for maximum retention. Cup receptacle is high reliability phosphor bronze contact in aluminum shell, stakes in 0.140" diameter hole on 0.250" centers. Accepts plug-in pin K24A.										

PIN RETAINERS AND TOOLS

K24A K27A T102

K24A K27A K27A T103

TERMINAL PINS AND CUP RECEPTACLES (Pkg./50) Pin Lght.

Used Pkg./100

Fits Hole

.040

1-9

1-9 10-Up

1.95 1.56 4.42 3.50 3.65 2.92

Des-

Retainer Retainer

Retainer Retainer Holder Holder

Mfr's

K24A K27A R23A

Mfr's

Stock

977-0980

977-0981 T102 977-0983 T103 977-0674 P132A 977-0673 P131A

977-0575 977-0587

977-0758

MICRO PUSH-IN TERMINALS

.062 BOARD

.025 SQUARE

MICRO PUSH-IN TERMINALS

T42-1 Microklip. Solderless terminals for .042" dia. holes. Holds wire in .top slot and end hole. Tinned beryllium copper. J Pin Series. .025" square pin stakes in two adjacent .042" dia. holes. Wrap or solder to two different length tails. K32: .250". K32-2: .170". K32-3: .140". T44 Miniwrap. Low profile (.065" above board) seats firmly in .042" dia hole. Wrap post and slot for wires. Phosphor bronze tin plated. T49 Klipwrap. Three fingered clip at top and .025" square tail for wire wrapping. Phosphor bronze tin plated. Pin length below Via" board: T49–.560"; T49-1–.388". R32 Socket Pin. Fits .042" dia. hole. Four fingered beryllium copper spring contact. .025" square tail. Nickel gold plating over brass body. T46 Miniwrap. Wire wrapping pin .028" sq., has swaged mid flange for firm holding in .042" dia. holes. Phosphor bronze tin plated.

Mfr's	Stock	Pkg	./100	Stock	Pkg./1000		
Type	No.	1-9	10-Up	No.	1-9	10-Up	
T42-1	977-0970	2.73	2.18	977-0971	14.62	12.53	
T44	977-0972	4.90	3.80	977-0973	29.59	24.20	
T46	977-0978	4.23	3.38	977-5035	26.24	22.44	
T49	977-5060	3.75	3.00	977-5036	15.60	13.34	
T49-1	977-5061	3.67	2.94	977-5037	15.28	13.07	
K32	977-0595	2.53	2.02	977-0596	16.21	13.90	
K32-2	977-5062	2.52	2.02	977-5038	16.24	13.90	
K32-3	977-5063	2.52	2.02	977-5039	16.25	13.90	
R32	977-5064	13.10	11.21	977-5040	116.09	99.31	

INSERTION TOOLS

Stock No.	Mfr's Type	Used For	1-9	10-Up
977-0013	A-13	T44	3.18	2.54
977-0689	P149 Straight	T42-1	2.23	1.78
977-5045	P149A w/Wooden Hndl	T42-1	3.65	2.92
977-5046	P156	T49	3.75	3.00

PAD CUTTER TOOLS

P116 has pilot fin for .062" diameter hole. P138 pilot pin fits .042" diameter hole.

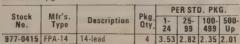
Stock No. Mfr's Type Size (Dia.) EACH 977-0663 977-0664 977-5025

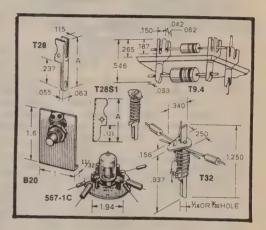
SOLDERLESS IC BREADBOARD SOCKETS Accept 14-pin DIP's and 10 or 12 lead, round TO-5's. Solderless springclip terminals. Mounted on $\gamma_{bc}{}''$ epoxy glass wafers. Two mounted .093'' pins. 570G; 2.63 x 1.33''.

570F: 23% x 15%". Accepts up to 6 wires. 2 oz.										
Stock No. Mfr's Type 1-9	10-24	25-99	100-Up							
977-1295 570G 6.62	5.28	4.17	3.88							

FLAT PACK IC SOCKETS

For mounting 12 and 14-lead IC's, $V_{16}V_{16}$ epoxy paper wafer with copper etched pattern on .05" spacing, Leads fan out to alternate .1" spacing, 14 Micro-Klip terminals, Shpg. wt. 3 oz.





BREADBOARD ACCESSORIES

SOLDERLESS SOCKETS. Reliable solderless "Spring-clips" are soldered to socket contacts. Up to 6 leads connect to each "Springclip" for fast, reliable connection. Sockets mount on any "A" or "AA" pattern Vector-bord with furnished hardware. Wt. 1/4 oz.

Stock	Mfr's	Description	EACH				
No.	Type		1- 9	10- 49	50- 199	200- Up	
977-1292	570B	4-Lead Transistor	4.60	3.68	3.07	2.63	

PUSH-IN TERMINALS. Solderless T32A springclip has less than .020 ohm resistance. Fits "Vectorbord." T9.4 and T28 press-fit; teeth in slots hold lead till soldered. Shpg. wts.: Pkg./1000, 12 oz.

Mfr's	Fits		Stk.	PKG. 100		Stk.	P	KG. 100	(G. 1000	
Туре	Holes In.	Desc.	No. 977-	1- 9	10- 24	25- Up	No. 977-	1- 9	10- 24	25- Up
T9 4	093	Tin-brass	0923	2.23	1.78	1,48	0924	16.04	13.37	11.48
T28		Tin-copper			1.94			15.32		
T28S1		Sil-copper					0955	20.26	16.88	14.47
T32A		Nic-brass						113.76	97.50	85.31
T32A1	062	Nic-brass	0967	16.24	13.53	11.60				

INSERTION TOOLS. Simplify terminal insertion. 2 oz.

	Stock	Mfr's	Used	EMUTI					
No.	Туре	For	1- 24	25- 99	100- 499	500- Up			
	977-0650 977-0678 977-0667	P-91 P-135 P-122B	T28 T-32 T9.4	.88 3.28 3.00	.70 2.62 2.40	.58 2.18 2.00	.50 1.88 1.71		

TYPE B20F POT AND SWITCH BRACKETS. Handy brackets made of durable aluminum. Used for quick and easy mounting of pots and switches on any "A" or "AA" pattern Vectorbords. Wt. per pkg. 6 oz. 977-0120. Pkg. of 4. 1-9......1.40 10-Up.....1.16

BUS STRIPPING. Precision punched tinned copper strip for voltage and ground distribution on circuit boards. Holes accept Vector terminals and pins. Available in 2" width punched with .093" holes on .265" centers, or .08" width with smaller holes (.042" diameter) on .1" centers for use with "P" pattern MicroVectorbord. Wt. per pkg. of 10, 5 oz.

Stock	Mfr's	Lgth.	Width	Mtg. Ctrs.	PKG	./10
No.	Туре	In.	In.	In.	1-9	10-Up
977-0976 977-0974 977-2004	T-58 T-57 T-107	8 16 14	.2 .2 .08	.265 .265 .1	2.08 4.05 5.42	1.66 3.24 3.70

Pkg./1000

10-Up

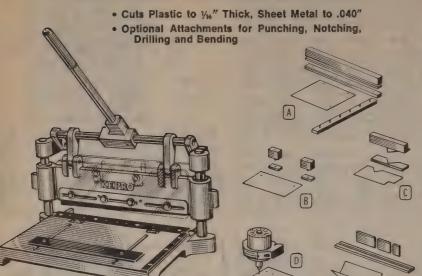
6.86 16.97 2.92 2.92

10-Up

2.62

Printed Circuit Boards, Tools and Equipment

PRINTED CIRCUIT BOARD/SHEET METAL SHEAR



MULTI-6 MS-6. A bench-top hand tool that will perform a variety of circuit board and sheet metal fabricating functions. Basically for cutting clad or unclad plastic materials such as G-10 glass epoxy, XXXP phenolic, FR-3 paper-base epoxy and mat polyesters up to 1/16" thick or sheet metals up to .040" thick. Only 15" wide and 13" deep, but will shear panels up to 12" wide. With squaring gauge and adjustable back length gauge. Shpg. wt. 24 lbs.

835-0218. 1-3. Each 197.90 4-Up.....Each 143.58 MIS-12. As above, but accessories not adaptable to it.

835-0163. 1-3......Each 131.58 4-Up..... Each 112.79 MODEL PH-6 PILOT HOLE PUNCH SET. Punch bar attaches to MS-6 shear. Provides six locations for .125" diameter perforating punches spaced 2" apart with first punch located 1" from right side. Punch centers located are accurately to ±.003" from first hole up to 10" maximum spacing. Can be used to punch pilot pin

holes in copper clad laminates up to 1/16" thick with one stroke. Complete with six punches. Shpg. wt. 4 lbs.

... Each 201.16 4-Up.....

MODEL PS-2 "FLOATING" 2-HOLE PUNCH SET. Two .125" diameter punches fixtured to permit two randomly located holes along a single axis. Holes may be spaced from 134" to 10" apart. Punches pilot pin holes in copper clad laminates up " thick. Shpg. wt. 2 lbs.

. Each 62.33 4-Up..... Each 53.42 MODEL NA-1 NOTCHING ATTACHMENT. Mounts on pressure rail of shear for use in cutting corner notches of up to 1" to 1" in laminate materials up to 1/16" to 1. In lamina

835-0239. 1-3..... Each 66.38 4-Up..... Each 48.00

D MODEL DA-1 DRILL ATTACHMENT. 115-VAC motor with type O chuck, mounting bracket and line cord with switch. Attaches to shear to drill holes from .020" to .125" diameter in all types of PC laminates-glass epoxy, phenolics, polyester. Shpg. wt. 4 lbs.

835-0085. 1-3.... Each 87.83 4-Up..... Each 75.29 E MODEL PB-1 PRESS BRAKE ATTACHMENT. Forms 90° bends in soft aluminum up to 18 gauge or sheet metal steel up to 22 gauge. Set includes one 12" brake die section, three brake rails for sections up to 6" long. Shpg. wt. 3 lbs. 4-Up..... Each 42.00 835-0280. 1-3..... Each 58.87

MULTI-USE BENCH-TOP SPRAY ETCHER



MODEL BTE-202. Construction material compatible with all commonly used chemistry. Etch single or double-clad copper PC boards in less than 3 minutes. Etch nameplates or chem-milled parts. Adaptable lift-out racks take rigid panels up to 12"x12" or thin flexible materials. Non-warping transparent lift-up cover permits constant observation. All power is cut when cover is lifted, to protect operator. 4 gal. capacity chamber empties and loads easily. Front-panel controls: function switches with pilots, heater cycling timer, liquid level sight gauge. 115/120 VAC, 15 amp. 60 cycles. Complete with 1000 watt quartz heater, two pumps. Wt. 60 lbs. 835-1032. 1-3.... Each 621.00 4-Up.... Each 425.00

This is the most complete line of PC boards, tools and equipment. The sole source for precision roller coated photosensitized copper clad laminates and nameplate panels in a wide variety of material types and foil weights. Equipment for shearing,

etching, exposing and developing your copper clads.

ETCHED CIRCUIT COPPER-FOIL CLAD MATERIALS

Laminated 1-oz. (.00135) and 2-oz. (.0127) copper-clad materials. Available in 1/16" XXXP paper base phenolic and G-10 glass epoxy with foil on two sides, except types marked with *, clad one side only Meet NEMA grade tolerances. Supplied unsensitized for screen processed parts and photo-sensitized for photo processed boards. Photosensitized materials are ready for exposure with no further sensitizing required.

Yw" XXXP PAPER BASE PHENOLIC (.00135) 1 OZ. UNSENSITIZED

Stock	Mfr's	Wt. per	Size	PI		G. OF 5		
No.	Туре	package		1-4	5-9	10-19	20-Up	
835-0310		1 lb.	3x6" 4x6" 12x12" 3x6" 12x12"	4.75	2.78 10.68 3.80	2.30 8.85 2.90	1.98 7.95 2.40	

PHOTOSENSITIZED

Stock	Mfr's	Wt. per			R PK	G. OF	5
No.	Туре	package		1-4	5-9	10-19	20-Up
835-0509 835-0517 835-0525 835-0533 835-0543	\$1-465° \$1-665°	11 oz. 1 lb. 6 oz. 1 lb. 2 oz. 1 lb. 14 oz. 3 lbs.	7x10"	5.80 6.90 10.25 12.59 33.00	8.20 11.10	6.85 9.90	3.95 5.85 9.10
835-0558 835-0565 835-0585	S2-465	11 oz. 14 oz. 1 lb. 13 oz.	4x6"	10.55 12.50 22.50	10.50	8.60	7.30

1/16" G-10 GLASS EPOXY 1 OZ. (.00135) UNSENSITIZED

Stock	Mfr's	Wt. per	Size	PE	R PK	G. OF	5
No.	Туре	package		1-4	5-9	10-19	20-Up
	P1-365G°	1 lb.	3x6"	7.15	5.74	4.78	4.10
	P1-465G*	1 lb. 2 oz.		7.95		5.30	4.55
	P1-665G*	2 lbs.	6x6"	11.50			
	P1-7105G*	2 lbs. 6 oz.	7x10"			16.10	
835-0321	P1-12125G°	3 lbs. 6 oz.	12x12"	32.65	28.00	24.80	22.80
835-0338	P2-335G	11 oz.	3x3"	5.55	4.45	3.78	3.18
835-0344		1 lb.	3x6"	12.10	10.40	8.50	7.30
835-0354		1 lb. 3 oz.	4x6"	9.10	7.30	6.00	5.20
	P2-7105G	2 lbs. 10 oz.	7x10"	22.50	19.50	16.80	15.60
835-0361	P2-12125G	3 lbs. 10 oz.	12x12"	34.00	29.20	25.80	23.70

PHOTOSENSITIZED

Stock	Mfr's	Wt. per	Size	P	ER PK	G. OF	5
No.	Туре	package		1-4	5-9	10-19	20-Up
835-0513 835-0520 835-0528		1 lb. 1 lb. 2 oz. 1 lb. 6 oz.	3x6" 4x6" 6x6"	9.85 11.40 12.40	7.85 9.10 10.55		
	S1-7105G° S1-12125G° S2-365G	2 lbs. 2 oz. 3 lbs. 6 oz. 1 lb.	7x10" 12x12" 3x6"	23.00 47.00 11.55	40.50		32.80
		1 lb. 3 oz. 1 lb. 6 oz. 2 lbs. 2 oz. 3 lbs. 10 oz.	6x6"	14.10 16.50 28.50 62.50	14.20 24.80	12.50 21.20	11.40

1/16" G-10 GLASS EPOXY 2-0Z. (.0027) UNSENSITIZED

Stock	Mfr's	Mfr's Wt. per		PI	ER PK	G. OF	5
No.	Type	package		1-4	5-9	10-19	20-Up
		1 lb. 6 oz.	4x6"	8.25		5.52	
		2 lbs. 4 oz.		11.80			
	P12-7105G°						
	P12-12125G*	3 lbs. 11 oz.	12x12"	36.80	31.70	27.90	25.40
		1 lb. 8 oz.					
	P22-7105G						
835-0406	P22-12125G	3 lbs. 13 oz.	12x12"	38.50	33.40	29.20	26.80

PHOTOSENSITIZED

Stock	Mfr's	Wt. per	Size	P	ER PK	G. OF	5
No.	Туре	package		1-4	5-9	10-19	20-Up
	S12-365G°	1 lb. 2 oz.		10.00			
	S12-465G°	1 lb. 8 oz.	4x6"	11.70	9.35	7.80	6.70
835-1015	S12-665G°	2 lbs. 4 oz.	6x6"	16.30	14.20	12.50	11.30
835-0620	S12-7105G°	1 lb. 9 oz.	7x10"	23.60	20.10	17.90	16.40
835-0623	S12-12125G*	3 lbs. 11 oz.	12x12"	48.50	41.40	36.80	33.60
835-1017	S22-365G	1 lb. 10 oz.	3x6"	10.40	9.00	7.90	7.20
835-0628	S22-465G	1 lb. 8 oz.	4x6"	14.25	11.40	9.50	8.15
835-0632	S22-665G	1 lb. 1 oz.	6x6"	15.40	13.45	11.70	10.65
835-1018	S22-7105G	2 lbs. 14 oz.	7x10"	37.95	32.60	29.15	26.40
835-1019	S22-12125G	4 lbs. 8 oz.	12x12"	76.50	66.25	58.10	52.80

USE ONLY KEPRO OR KODAK CHEMICALS ON THESE BOARDS.
SEE NEXT PAGE FOR LISTING OF CHEMICALS.

Printed Circuit, Layout and Nameplate Kits

IC AND PC **ACCESSORIES**

• Everything Needed by the Designer and Prototype Laboratory

Offer an excellent introduction to the processing techniques of etched circuit board production. They provide the beginner or professional with full materials and the knowledge to produce accurate, detailed circuit boards by thoroughly tested and proven methods. No prior experience is needed; great for students and hobbyists. Each kit includes comprehensive instructions that fully describe

STANDARD ETCHED CIRCUIT KIT

S-101A. Produces basic circuit patterns. Liquid or pressure-sensitive tape resists are applied directly to copper-clad boards, then etched. Perforated copperclad panel speeds component mounting. Includes materials for completely processing three single-clad panels, perforated copper-clad panel. 3x6". Shpg. wt.



835-0689. 1-9. .Ea. 6.90 10-Up. .Ea. 4.60

PROFESSIONAL ETCHED CIRCUIT KIT

P-101A. Etched circuit kit utilizes photo engraving process to produce profes-sional-quality etched circuits. Negative of layout can be produced photographically or mechanically with materials supplied. A sensitized sheet of XXXP phenolic copper-clad is exposed through your pre-pared negative, then developed and etched. Includes materials for completely processing three single-clad panels, one 3x3" and two 3x6". Shpg. wt. 3 lbs. 835-0475. 1-9. Ea. 10.40 10-Up. Ea. 6.80



MANUAL/PHOTO RESIST LAB KITS

L-505A. Boards up to 70 sq. in. may be processed. Includes PL-2A Photo Layout processed. Includes PL-2A Photo Layout Kit; 15 photo-sensitized copper-clad phenolic XXXP boards; 4 unsensitized boards; developing and etching trays; printing frame, mechanical negative; solutions; accessories. Wt. 20 lbs. 835U0201. 1-9 Ea. 37.60 10-Up Ea. 32.20

L-505A-G ETCHED CIRCUIT KIT LAB. Same as above but with G-10 glass epoxy boards instead of XXXP paper-base phenolic boards, Wt. 21 lbs. 835U0205. 1-9 Ea. 43.03 10-Up Ea. 36.80



Complete Outfit with 19 PC Boards

PHOTO LAYOUT KIT

PL-2A. Mechanical negative and pressure-sensitive characters. May be used directly as negative or photo-reduced to 2:1 or 4:1. Materials for 2 sheets of artwork. 8x10". 14 oz.

835-0483. 1-9. .Ea. 6.90 10-Up. .Ea. 4.65 PL-200A MASTER LAYOUT KIT. (not illus.). Make 18x24" artwork. Contains: 2 pcs—18x24" matte surface "Mylar"; 2 pcs—18x24" mechanical negative, "Mylar" base; 4 pcs—17x21" graph paper; Mylar-Master layout grid sheet. ½", ¾", ¼", ¼", ½", ½", ½" through ¼" tape strips; letters; opaquing fluids: tools 4 lbs fluids; tools. 4 lbs. 835U0484. 1-9. Ea. 50.41 10-Up. Ea. 43.20



Includes Materials for Two Sheets of Artwork

PHOTO REVERSING KIT

FK-701. Two easy steps prepare line negatives and positives from taped or ink artwork; or to reverse existing negatives and positives. Needs no darkroom, tanks or trays. Includes two pieces of reversing film 10x24", plus all processing chemicals necessary. Shpg. wt. 1½ lbs. 835-0154. 1-9.. Ea. 10.80 10-Up.. Ea. 7.20



RF-1024, EXTRA PHOTO REVERSING FILM. For use with above. Size: 10"x 24". Shipping weight 8 oz. 835-0488. 1-9 Ea. 4.50 10-Up Ea. 3.00 RFD-1PT. EXTRA PHOTO REVERS-ING FILM DEVELOPER. For use with kits listed above. Ship. wt. 1 lb. 835-0492. 1-9 Ea. 3.37 10-Up Ea. 2.25

• Step-by-Step Instructions, Complete Materials are Included

processing procedures in a simple step-by-step format. All necessary materials and equipment are included—nothing extra to buy. Allow you to progress quickly from simple experimental printed circuit boards to short-run production quantities with the full assurance of professional results. Contact Allied Electronics for higher quantity prices.

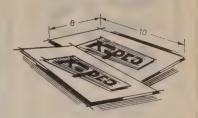
NAMEPLATE KITS

NP-303A ENAMEL KIT. All materials, including pressure sensitive opaque letters and numerals in 3 fonts. Photosensitized blue aluminum plates require only de-

Type

Stock No.

835-0252



NP-404 ANODIZED ALUMINUM NAMEPLATE AND PANEL KIT. All materials needed to produce detailed aluminum lettering on a black anodized panel. Includes pressure-sensitive opaque letters and numerals; three 3x6" plates;

WI -OUGH WINTERIALD										
Stock No.	Туре	Description	Size	1-9, Ea.	10-Up, Ea.					
835-0244 835-0242		Sensitized Enamel Plate Pressure Sens. Adhesive Sheet	12x20" 17x22"							

NP-404 MATERIALS Size |1-9, Ea. |10-Up, Ea. Description NP-SA1212 D-1PT Anodized Alum, Plate 12x12 7.97

SILK SCREEN PRINTING KIT

SC601A. Photo silk screen kit includes materials to produce one silk screen with print area to 7x9" plus silk and film emulsion for two additional patterns. Produces lacquer resistant film type photo stencii. No dark room required. With squeegee, mounting hinges, black and white inks. For screen-printing etched circuit boards, nameplates, instrument panels, decorative prints. Wt. 25 lbs.

835U0715. 1-9... Each 41.00 10-Up... Each 32.50



IMMERSION TIN PLATING KIT

ITP-801. Immerse etched PC boards in electroless ITP-801. Immerse etched PC boards in electroless tin solution for 5 minutes. Oxide-free copper surface of boards obtain a tin plating approx. .00002" thick. Plastic tong handles panels to 7" wide. Complete with thermometer, heat resistant tray for heating solution to 150°F, sufficient solution to tin plate approx. 25 sq. ft. of etched circuit boards. Heat with burner or electric plate, not supplied. Shpg. wt. 10 lbs. 835-0161. 1-9...Each 18.08 10-Up...Each 14.46



FLEXIBLE ETCHED CIRCUIT KIT

FP-101A. Produces three flexible etched circuit patterns up to 3x6". .004" thick Westinghouse type 5K02 material, 2-oz. copper clad on one side, is exposed thru prepared high-contrast negative. No darkroom needed. Handle in subdued incandescent room light. Expose by sunlight or #2 photoflood lamp. Complete for producing artwork and "cut and peel" mechanical negatives, exposure frame components, developing solution, ferric chloride etchant, two trays, instructions. Wt. 2% lbs. 835-0160. 1-9...Each 10.80 10-Up....Each 7.10



ETCHED CIRCUIT PROCESSING CHEMICALS AND PHOTO LAYOUT SUPPLIES

Stock No.	Туре	Description	Size	Each
835-0497 835-0487	RMP-700 R-1PT	Resist Marking Pen Paint Resist (for unsensitized sheet)	16 oz.	1.12 3.37
835-0730 835-0060	T-1PT D-1G	Resist Thinner Developing Solution (for sensitized sheet) Developing Solution, Wt. 75 lbs.	16 oz. gal. 5 gal.	3.42 7.50 29.25
835U0078 835-0108 835-0105	D-5G E-1PT E-1G	Etching Solution—Ferric chloride Etching Solution—Ferric chloride	pint gal.	1.27 4.50
835U0116 835-0128	E-5G EP-1G	Etching Solution Ferric chloride base Etching Powder—ammonium persulfate	5 gal. 1 gal.	16.29 4.87
835-0139 835-0486 835-0485	EP-5G PRS-1PT PRS-1G	Etching Powder—ammonium persulfate Photo Resist Stripper Photo Resist Stripper	5 gal. pint gal.	14.10 3.12 13.12

Stock No.	Туре	Description	1-9, Ea.	10-Up, Ea.
835-0216	MN-1212	12x12" Mechanical Negative, 4 oz.	2.02	
835-0238	MS-3	Stable Base Drafting Film, 8 oz.	3.80	

Printed Circuit Kits, Supplies and Lettering

DRY TRANSFER LETTERING



PRINTED CIRCUIT PADS MARKIT®

Type PC-1 (Black). Thousands of printed circuit pads: circles (with center hole), teardrops, teardrops (with vanishing point), double end teardrops, double end teardrops, double end teardrops (with vanishing teardrops). ishing points), elbows, elbows (terminal), T-connectors, fillets, ovals. Quick and easy to apply. Wt. 3½-oz. 566-1362. 1-4. Ea. 7.50 5-Up. Ea. 4.95

FOUR-STEP METHOD-SIMPLE AND QUICK

- After folding away the backing sheet, position the letter, number or symbol exactly where you want
- Burnish lightly with a pen or
- 3. Peel away the carrier sheet.
- Burnish with backing sheet.

B	C	D	E	F	G	н	1	1	1	2	2	3	3	4	4	K
В	С	D	E	F	G	н	1	1	3	2	2	3	3	4	4	į
B	C	D	E	F	G	н	1	1	1	2	2	3	3	4	4	į
B	c	D	E	F	G	H	1	1	1	2	2	3	3	4	4	4
8	C	D	E	F	G	н	1	1	1	2	2	3	3	4	4	4
8	c	D	E	F	G	н	1	1	1	2	2	3	3	4	4	9
м	н	м	м		G		1	1	1	2	2	3	3	4	4	5

COMPLETE ALPHABET AND NUMBER MARKIT®

Each MarKit has 27 3x6" looseleaf pages bound by a plastic spiral ring. Special wax-free adhesive assures permanence. Letters or number in Black or White, in 4 sizes: ½", ¼", ¾", ½". For a multitude of uses in electronics: chassis, prototypes, production. Wt.

NUMERALS

Stock	Mtr's	Color	Size	EACH			
No.	Type	Color	2178	1-4	5-Up		
566-1110	NM-1	Black	1/8	7.50	5.95		
566-1111	NW-1W	White	1/8	7.50	5.95		
566-1115	NM-2	Black	1/4	7.50	5.95		
566-1116	NM-2W	White	1/4	7.50	5.95		
566-1120	NM-3	Black	3/8	7.50	5.95		
566-1126	NM-4W	White	1/2	7.50	5.95		

ALPHABET

Stock	Mtr's	Calas	Size	EACH			
No.	Type	Color	Size	1-4	5-Up		
566-1010	AM-1	Black	1/8	7.50	5.95		
566-1011	AM-1W	White	1/8	7.50	5.95		
566-1015	AM-2	Black	1/4	7.50	5.95		
566-1016	AM-2W	White	1/4	7.50	5.95		
566-1020	AM-3	Black	3/8	7.50	5.95		
566-1026	AM-4W	White	1/2	7.50	5.95		

ON JUMP IONIZA IZATION JACKS J PERS JUMPERS JUI ARDS KEYING KEYI S KILOCYCLES KW

VATTS KILOWATTS EAKAGE LEAK LEFT

99 100 101 102 04 05 06 2334455

LPMR

FF

C

0

Electronics Glossary DIAL MARKING KIT

ELECTRONIC WORDS MARKIT®

An electronic glossary that lists over a thou-sand words from "AC" to "zooms" in alpha-betical order. Easily applied to control panels, prototypes, drawings, terminal boards, elec-trical and mechanical components. Wt. 8 oz.

Description

Color

1-4 5-Up

Mfr's

Type

566-1080 EM-1 566-1081 EM-1 W

Contains dial patterns; arcs, wedges, lines, dots, switch symbols, graduation lines, lines for rotary tap switches, potentiometers and calibrated meter dials. Ship. wt. 8 oz.

Stock	Mfr's	Description	EACH				
No.	Type	Description	1-4	5-Up			
566-1060	DM-1	Dial Patterns	8.75	7.00			

TERMINAL AND CHASSIS MARKIT®

Book contains numbers (thru 200, 1 thru 0 and 01 thru 09) plus complete alphabets. Has 15 black pages and 12 white pages. All numbers 1/8" high. Application in prototype, production. 8 oz.

Stock	Mfr's	Description	EACH				
No.	Type	Description	1-4	5-Up			
566-5010	TC-1	Markit	8.75	7.00			

LOGIC AND SYMBOLS MARKIT®

Contains flip flops, arrows, arrow heads, time delays, and nand, or nor, registers, shift registers, connection dots. Schmldt triggers, single shots. Ship. wt. 8 oz.

Stock	Mfr's	Danasinaiaa	Calan	EA	CH
No.	Type	Description	Color	1-4	5-Up
566-1070	LD-1	Diagram set	Black	8.75	7.00

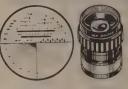


DIRECT POSITIVE **ETCHED** CIRCUIT KIT

ETCHED CIRCUIT KIT

- Easy to use rub-on transfer method
- Comes complete with instructions

10X OPTICAL COMPARATOR



For plating, soldering, lens-grinding,

- 10-power 35mm Precision Coated Lens
- Photo-printed Linear Scale on Base Glass

Type 3500. Precision instrument has 10-power, 35mm coated lens. Use it to check pad and target register, conductor path widths, hole diameters, line thicknesses—all linear values at tolerance levels. Check delicate cuts, scratches, plating, soldering, etc. Scale is photo-printed on the base glass for precise alignment, comparison. Includes protective lens cap, cleaning cloth, leather carrying case. Wt. ½ lb.
742-2235. 1-4..... Each 24.50 5-Up... Each 21.00

PRINTED CIRCUIT SUPPLIES **5003 TECHNICIANS KIT**

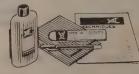
5006 SILK SCREEN PRINTING KIT



10-Up..... Each 2.98

Type PRFP. Draws variable width circuit pattern directly on copper clad laminate, glass, metal, etc. Square tip. 967-1601. Red. 3 oz...1-9 Each 2.97 10-Up Each 1.98 10-Up Each 1.98

FIBER TIP RESIST PEN



STUDENT PRINTED CIRCUIT KIT Type 5000. Contains copper clad laminate, etchant, new resist pen. Draws variable width lines directly on laminate. All supplies and instructions for layout and basic PC boards. Wt. 1 lb. 967-1613. 1-4 Ea. 6.75 5-Up Each 4.50

1:1 NEGATIVE ART KIT



Type 5200. Photo reversing kit converts black line artwork to "clear" line art of identical size for exposing pre-sensitized panels. Contains pres-sure-sensitive patterns, supplies to make two 4½x6" negatives. Wt.

967-1655, 1-4 Ea. 15.50 5-Up Each 12.95

5100 PRINTED CIRCUIT KIT



Laboratory-quality printed circuit kit lets you etch your own circuitry on copper-clad insulating boards. All materials provided. Efficient method incorporates ready-to-use presensitized copper-clad laminate. Cuts to a minimum the time required for making outstanding prototype printed circuits. Ideal for experimental use.

Kit includes: 20 pieces of single and double-clad and epoxy fiberglass laminates in assorted sizes, presensitized and uncoated; 2 rolls of tape resist, 1/6" and 1/6" wide; 200 die-cut tape circles; 1 bottle of resist and brush; ball point resist pen; eyelets, terminals; No. 51 drill; layout paper; exposure clamp; developing and etching solution and trays. With complete instructions. 967X1640. 9½ lbs. 1-4...Ea. 39.95 5-Up...Ea. 35.95

5002 EXPERIMENTERS KIT

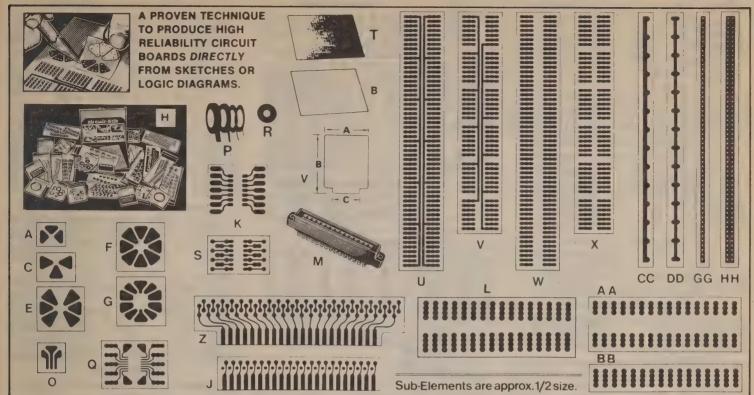


Beginners etched circuitry kit is easy to use, easy to follow. Includes six copper-clad boards from 3x2¼" to 4½x6"; etchant; tape resist; resist circles; eyelet assortment; drill. Convenient plastic case is 7½ x5x1½". Shop, wt. 1 ib. 5x11/a". Shpg. wt. 1 lb. 67-1615. 1-4 Eac

PRLT BALL POINT RESIST TUBES

Stock No. Color Stock No. Color Black Red 967-1611

Make resist patterns directly on copper clad boards as easily as using a ball point pen. Deposits line V_{16} " wide. 1-9 | 10-Up



This aerospace proven concept in circuit packaging permits rapid assembly of prototypes and limited quantity production systems directly from engineering schematics and logic flow diagrams. All sub-element conductors are preplated

and ready for soldering. Etched copper sub-elements are supplied on thin Substrates which have a high strength pressure sensitive adhesive backing Withstand soldering temperatures, adhere tightly, yet can be removed.

THE "1000" SERIES SUB-ELEMENTS ARE PRE-DRILLED ON .100-INCH GRID

			Pcs.		Per	Pkg.
Stock No.	Mfr's Type	Fig.	Per Pkg.	Sub-Element Description	1- 9	10-
665-1010 665-1020 665-1030	1001-010 1001-030 1021-010 1021-030 1023-010	AACCE	10 30 10 30 10	TO-18 or TO-5 3 Lead TO-18 or TO-5 3 Lead on 5 strips TO-5 3 Lead TO-5 3 Lead on 5 strips TO-5 6 Lead	4.38 11.82 4.38 11.82 5.25	3.50 9.46 3.50 9.46 4.20
665-1060 665-1070 665-1080	1023-030 1024-010 1024-030 1025-010 1025-030	HFFGG	30 10 30 10 30	TO-5 6 Lead on 5 strips TO-5 8 Lead TO-5 8 Lead on 5 strips TO-5 10 Lead TO-5 10 Lead on 5 strips	14.18 5.25 14.18 5.25 14.18	4.20
			DUAL-	IN-LINE PACKAGE SUB-ELEMENTS		1 6
665-1110	1101-010 1101-030 2101-010	SSK	10 30 10	Dual-In-Line 14 Lead Dual-In-Line 14 Lead on 5 strips Dual-In-Line 14 Lead	5.25 14.18 5.25	4.20
				4 PADS 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14		
665-1140 665-1150	1201-005 1203-005 1205-005 1207-005	U V X	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd avail. 6 DIP's/Strip. 14 Lead, pwr. and gnd pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead	10.50 13.13 10.50 13.13	9.00 10.50 9.00 10.50
			* '	3 PADS SHOWN	1	; ;
665-1170 665-1180 665-1190 665-1200	1204-005 1206-005	U W X	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip. 14 Lead	13.58 11.38 10.50 11.38	10.86 9.10 9.00 9.10
				DOUBLE PADS		
665-1210 665-1220 665-1230 665-1240	1222-005 1223-005	V	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead	12.25 11.38 12.25 11.38	9.80 9.10 9.80 9.10
				SINGLE PADS		
665-1250 665-1260 665-1270 665-1280 665-1290	1232-005 1233-005 1234-005 1062-010	UVWXQ	5 5 5 10	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead Flat Pack, 14 Lead	11.38 10.50 5.25	9.10 8.40 9.10 8.40 4.20
665-1300	11406-010	0	10	SCR Flat Pkg, Mtg.	5.25	4.20

				TO MATCH PRE-DRILLED BOARD									
				TO-5 & 10-18 SUB-ELEMENTS			w. 41	PLUG-IN	CON	NECT	OR STRIPS "HARD GOLD OVER NICKEL PLAT	Ε''	
			Pcs.		Per	Pkg.				Pcs.	/	Per	Pkg.
Stock No.	Mfr's Type	Fig.	Per Pkg.	Sub-Element Description	1-	10- Up	Stock No.	Mfr's Type	Fig.	Per Pkg.	Sub-Element	1- 9	10- Up
65-1010 65-1020 65-1030	1001-010 1001-030 1021-010 1021-030 1023-010	ACC	10 30 10 30 10	TO-18 or TO-5 3 Lead TO-18 or TO-5 3 Lead on 5 strips TO-5 3 Lead TO-5 3 Lead on 5 strips TO-5 6 Lead	4.38 11.82 4.38 11.82 5.25	9.46 3.50 9.46	665-1310 665-1320 665-1330 665-1340 665-1350	1356-005 1361-005 1362-005	Z. Z. Z.	55555	15 Pin. 156" Spacing Component Side 15 Pin, 156" Spacing, Circuit Side 22 Pin, 100" Spacing, Component Side 22 Pin, 100" Spacing, Circuit Side 22 Pin, 156" Spacing, Component Side	10.95 10.95 13.13 13.13 13.13	8.76 10.50 10.50 10.50
65-1060 65-1070 65-1080	1023-030 1024-010 1024-030 1025-010	FFG	30 10 30 10	TO-5 6 Lead on 5 strips TO-5 8 Lead TO-5 8 Lead on 5 strips TO-5 10 Lead			665-1360 665-1370 665-1380	2367-005	J	5	22 Pin, .156" Spacing, Circuit Side 22 Pin, .156" Spacing, Component Side 22 Pin, .156" Spacing, Circuit Side	13.13 10.95 10.95	8.76
65-1090 1025-030 G 30 TO-5 10 Lead on 5 strips 14.18 11.34 DISCRETE COMPONENT STRIPS													
			DUAL-	THE PROPERTY OF THE PROPERTY O	4" "	5 6	665-1390 665-1400	1311-010	BB	5 10	16 Discrete, Component Strip, mounts 80 Universal Strip, mounts 80 discretes	9.63 10.50	8.40
65-1110	1101-010 1101-030 2101-010	S	10 30 10	Dual-In-Line 14 Lead Dual-In-Line 14 Lead on 5 strips Dual-In-Line 14 Lead	14.18	4.20 11.34 4.20	665-1410	2301-005	L	. 5	Mounts 105 components DISTRIBUTION STRIPS	8.33	6.66
				4 PADS	,		665-1420 665-1430	1321-010	CC	10	.100" wide	6.13	4.90 5.74
55-1140 55-1150	1201-005 1203-005 1205-005 1207-005	V	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd avail. 6 DIP's/Strip. 14 Lead. pwr. and gnd pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip. 14 Lead	13.13	10.50	665-1450 665-1450	1325-010	GG	10	Single Row .100" hole spacing Double Row .100" hole spacing COPPER TAPE, DONUT PADS	7.00	5.60 6.30
33-1100	1207-005	^	5	3 PADS SHOWN	13.13	10.50	665-1460	7101	P.	1	.062" wide x 9 ft. long	1.33	1.06
55-1180 55-1190	1202-005 1204-005 1206-005 1208-005	V	5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip. 14 Lead	13.58 11.38 10.50 11.38	9.10 9.00	665-1470 665-1480 665-1490 665-1500 665-1510	7102 7103 7104 7201 7202 7251	PPRRR	1 1 250 250 5	.100" wide x 9 ft. long .187" wide x 9 ft. long .250" wide x 9 ft. long .100" dia. pads	1.58 1.75 3.50 4.38 4.38 10.08	1.26 1.40 2.80 3.50 3.50
				DOUBLE PADS			003-1320	1201	D	3	copper sheet, o x o .	10.00	0.00
55-1220 55-1230	1221-005 1222-005 1223-005 1224-005	V.	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead	12.25 11.38 12.25 11.38	9.10 9.80	665-1530				SOARD MATERIALS—PRE-SHAPED BOARDS ED HOLES ON 100 INCH GRID PATTERN	14.00	11 20
				SINGLE PADS			665-1540 665-1550	7402	' V	1	"A"-4.5", "B"-6.5", "C"-22 pins "A"-4.0", "B"-4.5", "C"-15 pins	9.20	7.36 5.96
	1231-005 1232-005		5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14	11.38	9.10 8.40		,		C	ONNECTORS, .156 PIN SPACING		
55-1270 55-1280	1233-005 1234-005 1062-010	W X	5	Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead Flat Pack, 14 Lead	11.38 10.50 5.25	9.10	665-1560 665-1570		M	1	22 Pins 44 Pins		4.20 4.90
	1406-010			SCR Flat Pkg. Mtg.	5.25		665-1580		Н	1	Prototype Kit	Each	116.08

Drafting Aids and PC Accessories

HINGED TERMINAL BOARD STANDOFFS



Hinged standoffs have unlimited applications. Interconnect circuits or services without danger of shorting. Standoffs mount at front of board. Made of Brass per MIL Spec QQ-B-626A Comp. 22-½ hard. Cadmium Plate finish per QQ-P-416 Class 2, Type 2 and gold Iridite. 90° swivel. *%# long below hinge, ## above. *†Male stud length. Av. shpg. wt. 2½ oz. Sold in packages of 10 only.

A STANDOFFS FOR FRONT OF BOARDS

Stock	Mar's	Use with	Lash	PER	PKG.	OF 10
No.		Hinge No.		1-9	10-24	25-Up
839-3421	1657A	351	3/4	1.65		
839-3422	1657B	352	1		1.40	
839-3415	1548E	353	3/4	1.44	1.15	.96
839-3416	1548F	354	1	1.68	1.39	1.31

B MALE HINGED STANDOFFS

Stock	Mfr's	The	Die		S-Thd.	PER	PER PKG. OF 10 1-9 10-24 25-Up 1.25 3.40 2.83		
No.	Туре	rna.	in.	In.	ln.	1-9	10-24	25-Up	
839-3321 839-3322	357 358	4-40 6-32	.187	1/2	1/4† 5/16†	4.25 4.50	3.40 3.60	2.83	

FEMALE HINGED STANDOFFS

839-3315 839-3316 839-3317	352	4-40	.187	1	.250	5.00	3.60 4.00 3.90	3.33
239-3318	354	6-32	.250	1.	.250	5.25	4.20	3.50

PRE-ETCHED CIRCUIT ZAPS® FOR PC BOARDS

1-oz. copper on 5 mil glass epoxy film, backed by pressure-sensitive adhesive. 1X scale conforms to MIL-STD-275 and IPC. *40 fingers. ½ oz.

Stock	Mfr's	Description	Cen-	Qtv.	PER	PKG.
No.	Туре	Descripcion	in.	Pkg.	1-9	10-Up
742-2312 742-2313 742-2321 742-2334 742-2341 742-2343 742-2360	9012 9013 9021 9034 9041 9043 9060	14-pin dual in-line 16-pin dual in-line 14-lead flat pack "TO" can 10-lead Connector strip" Connector strip" Cond. (.031x5½)	.250	16 2	8.78 8.78 8.78 8.78 8.78 8.78 8.78	7.02 7.02 7.02 7.02 7.02 7.02 7.02

PRESSURE SENSITIVE DRAFTING AIDS







Conform to MIL-STD-275 and IPC guidelines. Available in 1X or 2X scale (4X on special order). For 2X, multiply dimensions by two. Roll of 250. 1 oz.

"TO" CAN PATTERNS

Canal	Mfr's	Fin	Casla		Actua	Size	Clear-	PER F	OLL
Stock No.	Type	Fig.	1X 3	0.D. in.	1.D. In.	ance in.	1- 9	10- Up	
742-2270 742-2780 742-2275 742-2285 742-2286	6003 6048 6021 6197 6198	DDHEFF	1X 2X 1X 2X 2X	3 8 8	.087 .087 .062 .062 .062	.015 .015 .015 .015	.025 .025 .025	10.28	8.22 8.22 8.22 8.22 8.22

DUAL IN-LINE PATTERNS

742-2272 742-2279 742-2271	6038 6004	 1X 2X 1X	14 14 16	.070 wide	.015 .015 .015	.030	11.33 11.33 11.33	9.06
742-2282	6109	 2X	16		.015	.030	11.33	9.06

PRECISION OPAQUE AND TRANSPARENT TAPE

T-201 Is .005" thick, T-205 and T-207 are .0025" thick

Stock No.	Type	Width In.	Color	Length	PER 1-9	ROLL 10-Up
742-2216 742-2217	T-201 T-201	.031	Black Black	20 yds. 20 yds.	1.13	.90



CERAMIC STAND-OFF INSULATORS

Threaded at both ends to accept 6-32 or ¼-20 machine screws except Type 2640 which is threaded throughout. 3 oz. Per Pkg. of 10.

Stock	Mfr's	Dim	ension	s, In.	Thd.	PK	G. OF	10
No.	Type	A	В	С	180.	1-9	10-24	25-Up
920-2540 920-2541 920-2542 920-2543 920-2544 920-2545	2640 2641 2642 2643 2644 2645	1/2 1/2 1/2 1/2 1/2 1/2 1/2	1/4 1/4 3/6 3/6 1/2 1/2	Thru 5/32 5/32 3/16 9/64 1/4	6-32 6-32 6-32 6-32 6-32 6-32	2.15 2.29 2.42 2.56 2.83 2.96	1.72 1.83 1.94 2.04 2.26 2.37	1.43 1.52 1.61 1.70 1.88 1.97
920-2546 920-2547 920-2548 920-2549 920-2550	2646 2647 2648 2649 2650	1 1½ 2½ 2½ 4	1/2 1/2 1/2 1/4 3/4 3/4	3/8 9/16 1/2 3/4 3/4	6-32 6-32 6-32 ¼-20 ¼-20	3.23 3.77 4.18 6.20 8.23	2.58 3.02 3.34 4.96 6.58	2.15 2.51 2.78 4.13 5.48

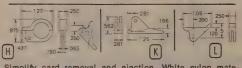
PC COMPONENT CLIPS

Mtg. holes: V1000 to V1006, %2". V1008, %2"; V1010 & V1011, two %2". ½" long except V1010 & V1011, 1½". *Dia. of part held. **Per Pkg. of 10.**

Stock	Mfr's	Dia.*		PER	PKG. OF 10		
No.	Туре	Inches	1-9	10-24	25-49	50-Up	
911-5000 911-5002 911-5003 911-5004	V-1000 V-1002 V-1003 V-1004	1/4 3/6 7/16 1/2	.95 .98 .99 1.01	.85 .88 .89	.75 .78 .79 .81	.61 .63 .65	
911-5006 911-5008 911-5010 911-5011	V-1006 V-1008 V-1010 V-1011	% % 1 1%	1.05 1.15 1.63 1.80	.95 1.05 1.53 1.70	.85 .95 1.43 1.60	.69 .75 .92 1.04	

PC CARD PULLERS AND EJECTORS





Simplify card removal and ejection. White nylon material; some also in colors; ready to mount.

					EA	CH	
Stock No.	Fig- ure*	Туре	Colort	1- 9	-10- 24	25- 99	100- Up
957-4001 957-4002 957-4003 957-4004 957-4005	G K J L	5005-05N 5005-08N 5005-09N 5005-20N 5005-25N	White White White White White	.57 .50 .65 .50	.46 .40 .52 .40 .46	.31 .27 .34 .27 .31	.25 .22 .28 .22

†Also available in Blue, Green, Red or Yellow.
*Figure G is Ring Puller-mounting pins supplied.
Figure K and L are Ejectors-hardware supplied.
Figure J is Standard Puller.
Figure H is Combination Ejector-Puller-hardware supplied.

STANDARD AND BOWED CARD GUIDES



Black nylon. Series 8825 (Stand.) and 8828 (Bowed) for .090" thick boards. Series 8827 (Stand.) and 8826 (Bowed) for .062" thick boards. *Bowed design provides retention.

	1				ŁA	CH	
Stock No.	Mfr's Type	Length	For Bd.	1-9	10- 24	25- 99	100- Up
957-4101	8825-2	2"	.090"	.21	.17	.12	.11
957-4102	8825-3	3"	.090"	.22	.18	.13	.12
957-4103	8825-5	5"	.090"	.25	.20	.14	.13
957-4104	8826*	3.5"	.090"	.42	.34	.30	.28
957-4105	8827-2	2"	.062"	.21	.17	.12	.11
957-4106	8827-3	3"	.062"	.22	.18	.13	.12
957-4107	8827-5	5"	.062"	.25	.20	.14	.13
957-4108	8828	3.5"	.062"	.42	.34	.30	.28

CIRCUIT BOARD MOUNTING BRACKETS



Provides rigid support under shock or vibration. Mounts single or double panels. Meets MIL-STD-202 and MIL-S-901 (Ships) specifications. *Distance between ctrs. of holes in panel supports. Formed from cold-rolled carbon steel. Av.

Stock	Mfr's	B A Support				
No.	Type	la.	Inches	1-9	10-49	50-Up
904-0510 904-0511 904-0512 904-0513	MB-125 MB-126 MB-127 MB-128	21/16 29/16 31/16 39/16	1 1½ 2 2½	.45 .48 .50 .53	.34 .36 .38 .40	.26 .27 .28 .30

CIRCUIT BOARD SUPPORTS



Board supports are easily installed by hand. Assembled boards are readily mounted, lock in place and are easily removed for replacement or repair. Made from strong, tough nylon. Positive spring locking action, yet are easily removed. Snap into 187" hole in chassis .030-.093" thick. Av. shpg. wt. 4 oz. Sold in packages of 100.

Stock	Mfr's	Height	PER PKG.		. OF	OF 100	
No.	Туре	Inches	1-9	10-24	25-49	50-Up	
911-0503 911-0504 911-0506 911-0508	CBS-3N CBS-4N CBS-6N CBS-8N	3/16 1/4 3/8 1/2	3.25 3.42 3.59 3.85	2.57	2.14	1.22 1.29 1.35 1.45	
911-0510 911-0512 911-0514	CBS-10N CBS-12N CBS-14N	% ¾ ¾	4.09 4.32 4.61	3.07 3.25 3.46	2.56 2.71 2.88	1.54 1.63 1.73	

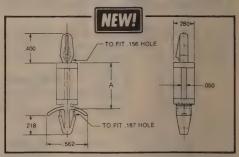
HEX PVC SPACER STAND-OFFS



Gray polyvinyl dichloride with high di-electric, excellent insulation and me-chanical strength. Self-extinguishing; low moisture absorption; resistant to chemicals; easy to apply. For use with self-tapping screw (size 4, 6, 8 as in-dicated). 5 oz. Pkg. of 100 only.

Stock	Mfr's	Lath.	Hex	Screw	PEI	PER PKG. OF 100		
No.	Туре	in.	ln.	Size	1-9	10- 24	25- 49	50- U p
911-0674 911-0678 911-0684 911-0685 911-0686 911-0688	HS4-4 HS4-8 HS6-4 HS6-5 HS6-6 HS6-8	1/2 1/2 5/6 3/4 1	.187 .187 .250 .250 .250 .250	#4 #6 #6 #6	4.35 3.95 4.25 4.55	2.65 3.26 2.96 3.19 3.41 3.88	2.72 2.47 2.66 2.84	2.26 2.08 2.21 2.36

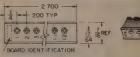
NEW FOR 1975 LOCKING CIRCUIT BOARD SUPPORTS



Locking tension flange laps over board to hold securely in position. Locking device and nylon construction, enables four supports—one at each comer of board—to support up to 100 lbs. in either upright or inverted position. Available in 11 spacing heights—provide ample clearance from chassis for assembled boards. Arrow type locking head snaps into hole in chassis—expands to lock permanently in position. Fingertip insertion. Circuit board snaps over top of tapered support; holds in position. Squeeze of fingers, permits removal of board from support for repair or replacement. Sold only in pkg./100.

				EACH I	2kg./10	U
Stock	Mfr's			10-	25-	100-
No.	Type	Height	9	24	99	Up
911-6003	LCBS-3N	3/18"	4.25	3.10	2.55	1.65
911-6004	LCBS-4N	1/4"	4.35	3.25	2.70	1.85
911-6006	LCBS-6N	3/8"	4.50	3.40	2.85	1.95
911-6008	LCBS-8N	1/2"	4.85	3.65	3.05	2.15
911-6010	LCBS-10N	5/8"	5.20	3.90	3.25	2.30
911-6012	LCBS-12N	3/4"	5.50	4.15	3.45	2.50
911-6014	LCBS-14N	7/8"	5.80	4.40	3.65	2.65
911-6016	LCBS-16N	1"	13.70	10.30	8.55	5.50
911-6018	LCBS-18N	11/8"	14.00	10.55	8.80	5.80
911-6020	LCBS-20N	11/4"	14.35	10.80	9.00	6.25
911-6022	LCBS-22N	1%"	14.70	11.00	9.15	6.60

TEST POINT STRIP HANDLE





TYPE 268-402 For PC testing. Insulation resistance greater than 200 megohms after MIL-T-5422B humidity test. 5 amp capacity. Operating voltage, 1500 volts. Contact resistance less than 2 milliohms. Beryllium copper plated. 1 oz. 828-1484. 1-49 ... Ea. 2.23 50-99 ... Ea. 1.50 100-499 ... Ea. 1.37 500-Up ... Ea. 1.29

Allied PC Board Holders, Vises, Module Cages

IC AND PC ACCESSORIES

Allied Circuit Board Holders and Vises hold the most delicate circuit boards and components firmly in position for assembly and adjustment procedures. Leaves both hands free. Simple position adjustment.

TYPE 62E4 QUICK-ADJUST VISE. Instantly adjusts from 9" opening to smaller center opening. Non-slip neoprene jaws. Consists of chrome-plated steel vise, spring-loaded positioner, 5 lb. cast iron base. Wt. 10 lbs. 809-4491. 1-4.... Each 46.79 5-Up.... Each 37.26

B TYPE 62E10 WIDE-OPENING VERTICAL VISE. 6" vise TYPE 62E10 WIDE-OPENING VERTICAL VISE. 6" vise with Pana Positioner hold 15 lbs. with cast iron base, 50 lbs. when boited to bench. Spring-loaded positioner may be adjusted to correct tension to hold weight in any position; relocates to another position without readjustment. Crank handle for quick change from one position to another. Vise is chrome-plated heavy gauge steel wire. Replaceable neoprene jaws. Rubber feet. Shpg. wt. 10 lbs. 809-4497, 1-4.....Each 38.80 5-Up....Each 29.10

TYPE 62L5 CIRCUIT BOARD HOLDER. Spring loading allows quick insertion and removal of boards up to 10" wide. Permits 360° rotation of circuit board for lead bend-over. Adjustable tension for easy flip-over, or to lock board in place. Friction bearing lets board be rotated and stopped at any point in 360°. Shpg. wt. 7 lbs. 809X4499. 1-4....Each 44.03 5-Pp.....Each 35.07

TYPE 52 SPRING-LOADED HAND IC INSERTION TOOL. Ideal for inserting D.I.P.'s into printed circuit board. Picks D.I.P.'s out of package, automatically squeezes them to fit the hole pattern, then ejects them when firmly placed on the board. Lightwight and comfortable, to permit long hours of use without fatigue. ½ lb. 809-4425. 1-4.....Each 14.93 5-Up.....Each 11.89

TYPE 62X 7" CIRCUIT HOLDER. Spring loaded arm makes snugging up fast and simple. Change oval, square and oblong boards without touching knobs. Easy to set at desired height and angle. Fast flipping. Use with 62A and 62A4. Shpg. wt. 1 lb. 809-4505. 1-4.....Each 17.03 5-Up.....Each 13.56

TYPE 62A6 PANA-VISE ON VACUUM BASE, Flip of lever holds base firmly to any smooth, non-porous surface. Holds heavy pieces in any position. Consists of 62A4 and 62D. Pivots work 360° in any tangent to half a sphere, gives any compound angle. Vise has replaceable jaws. Shpg. wt. 4 lbs.

809-4464. 1-4.....Each 31.10 5-Up....Each 26.10

Outer frame of heavy extruded aluminum, 0.075" wide parallel grooves on 4 interior surfaces. Two side panels slide out. Paintable clear anodized aluminum finish. Supplied with press-on vinyl mounting feet. Wt: 1 lb.

Stock	· Mfr's	Size and	. :	EACH	
No.	Type	Descr. (Inches)	1-9	10-49	50-Up
977-1019	W20-46-31B	2Wx4.6Lx3.1H for 4½x3½ cards	4.70	2.81	2.53
977-1021	W20-66-46B	2Wx6.6Lx4.6H for 4½x6½ cards	6.28	4.73	3.36
977-1023	W30-86-46B	3Wx8.6Lx4.61H for 4½x8½ cards	8.40	6.10	4.51
977-4006	W30-100-66B	3Wx10.0Lx6.2H for 6½x9.88 cards	10.77	8.44	6.20
977-1027	W30-140-80B	3Wx10.0Lx8.0H for 7.9x10 cards	10.77	8.44	6.20
977-4005	W45-66-46B	4.5Wx6.6Lx4.6H for 4½x6½ cards	9.60	7.30	6.10
977-1030	W45-100-4B	4.5Wx10.0Lx4.6H for 4¼x10 cards	12.57	8.50	6.80

CASES FOR PRINTED CIRCUIT CARDS

Two slide-out sides. Nine inside %6'' grooves spaced 150" allow choice of positions. Plain .040" bases for cutting Plugboard slots for mount plugs. 10 oz.

			Size Inside		EACH	
Stock No.	Type HF20-	Size, Inches	Board WxL inches	. 1- 9	10- 49	50- Up
977-0518	46-62/1	2.0x4.62x6.21	4.5x6.1	8.45	6.58	5.46



"MULTI-MOD"

ALUMINUM CASES

W

UNIVERSAL PRINTED CIRCUIT CARD RACK



TYPE 62A4 VACUUM BASE WITH PANA POSITIONER. Attaches and removes with flip of a lever. Cast aluminum base, neoprene holding pad on bottom. Mounted positioner holds fixtures with \(^5\epsilon^\text{w}\) shaft. Complete versatility in making work set-ups. Shpg. wt. 2½ lbs. 809-4461. 1-4..... Each 28.00 5-Up..... Each 21.00

PANA-VISE WITH VERTICAL HEAD

TYPE 62. Versatile vise opens to 2½". Compound mechanism holds heavy pieces rigidly in any position for assembly, adjustment or similar work. Pivots work 360° in any tangent to half a sphere; achieves any compound angle. Base will hold any fixture with 5½ stem. Vise has replaceable jaws. Consists of 62A positioner and 62D head. 8x6x5". Shpg. wt. 3½ lbs. 809X4451. 1-4....Each 24.90 5-Up....Each 19.87

PRINTED CIRCUIT BOARD HOLDER

TYPE 371. Mounts on Midget "PowRarm" No. 345 (supplied). Specially designed for rapid, low-cost printed circuit production. Brackets adjust horizontally 3" to 6". V-grooved vertical posts (1/2" wide, 1/4" deep) permit insertion and removal of workpiece without adjustments. Shpg. wt. 2 lbs. Each 17.18

H ELECTRONICS VISE

TYPE 353. Mounts on Midget "PowRarm" No. 345 (supplied). For use with small subassemblies and Pc boards. Holds work firmly but gently; jaws are rubber wrapped to protect workpiece. Heavy-gauge steel with double slide bar—opening easily adjusts to 6½" with crank handle. Shpg. wt. 3 lbs.

988-7353. Each 21.90

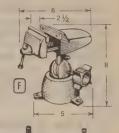
TYPE 62H DELUXE 7" PC BOARD HOLDER. Holds oval, square and oblong boards. Turns work surface 360°; horizontal, vertical, any desired position. Spring tension arm allows board to be removed, turned, inserted without adjustment. Use with 62A, 62A4. Shpg. wt. 11/4 lbs. 809-4498. 1-4.... Each 21.04 5-Up.

TYPE 62A PANA POSITIONER. Pivots 360° on any tangent to half a sphere, achives any compound angle to hold work in any position desired. Single lock rigidly holds any 56" fixture. 5" wide x 4" high. Shpg. wt. 2 lbs. 809-4457. 1-4..... Each 14.93 5-Up..... Each 11.89

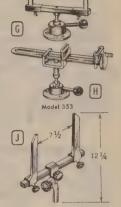
TYPE 62D VERTICAL VISE HEAD. Opens to 2½". Replaceable laws. Shaft is %" for use with 62A positioner or 62A4 vacuum base with positioner. Shpg. wt. 1 lb. 809-4476. 1-4.....Each 14.97 5-Up.....Each 11.98

TYPE 62C NYLON JAWS. Special jaws to hold small circuits. Ideal for 62D and 62E. Shpg. wt. 1/4 lb. 809-4470. 1-4......Each 3.00 5-Up......Each 2.40



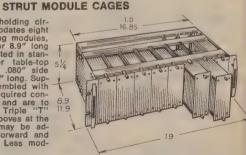


Model 371 PC Holder



MODULE CAGES AND CASES

Adj. aluminum frames for holding circuit card modules. Accommodates eight 2" wide by 6.6" or 8.9" long modules, or ten 1.6" wide by 6.6" or 8.9" long modules. May be rack-mounted in standard 19" relay racks, or table-top mounted. Heavy 5½" high .080" side walls which are 8.9" or 11.9" long. Supplied assembled; or unassembled with all guides and hardware. Required connectors are user-furnished and are to be mounted on a pair of Triple "" struts having captive nut grooves at the back of the cage. Struts may be adjusted up and down, or forward and backward. Anodized finish. Less modules. Wt. 4 lbs.



Stock Mfr's			EA	EACH		
No.	Туре	Description	1-9	10-Up		
977-0242	CA52HE89/CMG-7	Cage unassembled, 8.9" deep with guides; accommodates eight 2" wide EFP modules 6.8" long (listed below)	46.64	34.14		
977-0238	CMA 4-20	Cage assembled, 11.9" deep with guides; eight 2" wide EFP modules 9.6" (below)	58.85	45.32		
977-0240	CA52HE89/CMG-4	Cage unassembled, 8.9" deep with guides; accommodates ten 1.6" wide EFP modules 6.6" long (listed below).	50.73	36.40		
977-0414 977-0514	FP52-2 HA-12	Extra Filler Panels Handles for above cages, Pkg. 2	4.67 1.25	3.74		

ALUMINUM EFP MODULES FOR STRUT CAGES

Accept $41/2 \times 61/2 \times 1/6$ " or $41/2 \times 9.6 \times 1/6$ " circuit cards. Front and rear panels of .080" aluminum. May be punched or drilled. Sides slide off for easy access. Supplied with 2 thumb screws. 80dB shielding. Nat. anodized finish. 1 lb. (*)6 circuit card grooves. (†)9 circuit card grooves.

			EACH	
Stock No.	Mfr's Type	Dimensions (inches)	1-49	50-Up
977-0331	EFP 164-6.6°	1.6W x 4.6H x 6.6L	9.87	5.31
977-0334	EFP 164-9.7°	1.6W x 4.5H x 9.7L	11.50	6.12
977-0343	EFP 204-6.6†	2.0W x 4.6H x 6.6L	10.05	5.46
977-0346	EFP 204-9.7†	2.0W x 4.5H x 9.7L		6.26



Radio Shack Printed Circuit Components

CIRCUIT BOARDS AND PC COMPONENTS





A ARCHER® PERF BOARDS

- Accept Miniature Components
- 1/16" Thick for Easy Mounting
- Punched Phenolic Boards or Solid Copper-Clad Board

Ideal for modular construction by hobby-ist or experimenter. Phenolic and copperciad boards for breadboards or printed circuits. $Y_{\rm lg}^{\alpha}$ thick.

PATTERNS FOR PERF-BOARDS

Pattern	Grid Hole Centers	Hole Size
Α	.265x.265	3/32
В	.187x.187	1/16
C	.100x.200	1/18

PREPUNCHED PERF-BOARDS

Stock No.	Mfr's Type	Pat- tern	Size	Each
910-6732	276-1582	AABBCC	3%x6%	.89
910-6733	276-1583		6%x9%	1.59
910-6710	276-1390		4%x5%	.99
910-6711	276-1391		5%x9	1.49
910-6712	276-1392°		4%x5%	.99
910-6723	276-1393°		3%:9	1.89

*Alternate Grid

SOLID COPPER-CLAD

Stock	Mfr's	Size	Each
No.	Type	Inch	
910-6737	276-1587	6%x9%	1.79

B ASSORTMENT OF 10 COPPER-CLAD PERF-BOARDS

Designed to be used in a wide variety of industrial and commercial uses. Perfect for schools and hobby work, too. Phenolic corner-clad boards, some solid, some perforated. Make your own printed circuits. 910-6730. Type 276-1580. Wt. 11 oz..1.79

© SET OF 10 PUNCHED BOARDS

Wide variety of sizes and shapes make these punched boards useful for many applications in educational and commercial applications. Hole sizes are 1/1/2" straight and alternate grids. Sizes vary; 1/2"—3" square, rectangular. 1/2 lb. 910-6725. Type 276-1575.

ARCHER® PRINTED CIRCUIT KIT HAS EVERYTHING YOU NEED



SET OF 5 HEAT SINKS



EXPERIMENTER PERFBOARDS FOR EASY COMPONENT MOUNTING

Solid copper-clad boards that are ideal for modular construction. 1/6" thick.

Stock No.	Туре	Size	EACH
910-6736	276-1586	3%x6%"	.99
910-6737	276-1587	6%x9¾"	1.79
910-6738	276-1589	5x11¾"	1.89

AL LESIS

ETCH RESIST LACQUER

 Complete with Etching Brush For Drawing Circuits

1 Fl. Oz.

Etch resist lacquer enables you to make your own, professional-quality, printed circuit boards on copperciad board. Comes supplied with etching brush.

910-6192. Type 276-1531..... Each .89

PERFBOX® WITH PANEL



Perfbox

- Build Professional Projects without Cutting or Drilling
- Predrilled Speaker Grille

Perfboard front is removable for easy component wiring; 1/4" diameter hole in side serves as outlet for speaker wire, line cord or harness. Rear predrilled for 2¼" or other speaker. Hole diameter, .062". Bakelite case, 3¾ x6½ x2".

910-6105. Type 270-097......Each 2.39

EXPERIMENTER'S "P-BOX"



- Parts Mount without Cutting Tools • Removable Lid
- Withstands Soldering Heat

Revolutionary new material withstands soldering heat. Gray perforated work base has 3/2 dia. holes. Removable transparent lid with selflocking hinge. 4% x3% x1½". 4 oz. 910-6115. Type 270-105..... Each .99



PRINTED CIRCUIT ETCHANT SOLUTION

• Takes Copper Off Perfboard ... Completely!

· Safe, Easy & Fast to Use

A PC "must" for hobbyists, builders, experimenters! A special ferric chloride solution removes copper completely without damage to board material. Shpg. wt. 1½ lbs. 910-6715. Type 276-1535.......Each 1.69

SOLDERLESS SPRING **TERMINALS**



Set of

Type 270-1547. Gives a strong, positive connection without soldering. Leads slip between spring coil for binding contact. 910-6190 1.49

10-PC. ANGLE BRACKETS "Z" to "L" Shapes

Positive Mounting



Type 270-1548. Five "Z's" & five "L's" for easy socket mounting to PC boards. Metal, with end holes. 910-6191

RESIST MARKING PEN



• Fast Drying Black Ink

• Fine Point Marks Easily

With Handy Pocket Clip

Allows you to draw and design your own PC patterns directly on copper-clad boards. Fine point, black ink, Shpg. wt. 2 oz.

910-6717. Type 276-1530......Each 1.19

Chemicals and Service Aids at Low Cost



ELECTRICAL CONTACT CLEANER TYPE 8666

Conditions, lubricates and cleans electrical contacts. Just spray and this cleaner does the rest. Fach 1 40



"FREEZER-MIST" COOLER **TYPE 8668**

Allows you to pinpoint bad capacitors and transistors, oxidized joints, plus many important applica-tions. Leaves no residue. Available in 6-oz. spray



"JIF" CONTACT CLEANER **TYPE 8670**

Cleans and lubricates contacts, controls and switches. Contains silicone for good lubrication. No harmful solvents, Non-flammable, Available in 6-07 can



796-8670. Shpg. wt. 10 oz..... Each 2.40

"RELAY KLEEN" CLEANER **TYPE 8662**

Super cleans relays and contacts. Leaves no residue. An excellent solvent and de greaser. Safenon-flammable. Available in 6-oz. can with spray



796-8682. Shpg. wt. 11/2 lbs...........Each 2.53 **THRIFTY 16-OZ. "RELAY KLEAN"**

TYPE 8663-16

An Allied "best buy". Here's the economical way to order one of our most popular relay and contact cleaners. Same as "Relay Klean" above, but in jumbo 16-oz. can. Also excellent for switchboard, automatic pinball, bowling games, space circuitry, many other applications. Complete with handy spray extension.



796-8683. Shpg. wt. 11/2 lbs..... Each 4.67

TUNER CLEANER & LUBRICANT TYPE 64-2315

Cleans and lubricates radio and television tuners. Stops noise in volume controls. Remove knobs and spray. Keep your tuner in top operating condition with this handy cleaner. No mess with this handy spray can. Clears away dust which may cause costly repairs. Specially designed for circuit parts.



ACRYLIC PROTECTIVE SPRAY TYPE 64-2317

All-purpose acrylic protective spray for use on many electronic parts. Prevents rust, pitting, corrosion. Deters arcing and corona shorts. Over 20,000 volts dielectric strength. Dozens of uses in the electronics workshop.

910-5942. Shpg. wt. 1 lb....... Each 1.49



ALL PURPOSE GLUE TYPE 64-2311

A versatile, fast-drying all-purpose glue for joining plastic, wood, rubber, glass ... Provides a strong, permanent bond.



TRANSISTOR Z5 COMPOUND **TYPE 8101**

Silicon compound. For mounting or remounting. Specially designed to protect components. Makes circuits more stable due to additional heat transfer. 796-8101. Shpg. wt. 2 oz..... Each 4.38



"ZERO MIST" COOLER **TYPE 8667**

Cools components instantly. Pinpoints trouble spots. Handy spray extension included. Makes trouble-shooting faster and easier. Big 16-oz. spray

796-8667. Shpg. wt. 11/4 lbs.......... Each 2.93



MIRACLE QUICK-SETTING ADHESIVE

Note: for use with non-porous materials.

Stock No. Type Grams 1-10 11-25 26- Up 611-0100 CE-479 2.00 1.75 1.35 20 611-0200 | CE-490 | 6.87 5.50 4.68

Sets in 10 to 45 seconds with a tensile strength of up to 5000 lbs. per sq. in. Requires no solvents, catalysts or treatments for bonding. Cures at room temperature. Moisture resistant, virtually no shrinkage. Bond is colorless, transparent.

- Sets in Just Seconds
- High Tensile Strength
- Dries Clear, Colorless
- Virtually No Shrinkage
- One Component System



QUALITY CHEMICALS FOR EVERY APPLICATION

MOISTURE REMOVER

Type 10-700. Penetrates rust. Frees frozen parts. Removes moisture. does not trap it. Protective shield prevents oxidation.

796-3605, Wt. 1 lb..... Each 2,35 SUPER FREEZE MIST

Type 10-702. Instant cooling action

at its best. Non-toxic, non-flamma-

ble. Dry cooler, no liquified resi-

796-3610. Wt. 15 oz.... Each 3.35

KOLOID CLEAR ACRYLIC

Type 8665. A clear acrylic ester

resin base for insulation and pro-

tection. Used also as ornamental

finish for metal. 16-oz. aerosol. 796-8665. Wt. 1 lb..... Each 2.48

"DRY-KLEEN" CLEANER

Type 8669. Cleans contacts, relays,

and other electronic devices. No

residual, oil deposits. Also an ex-

796-8669. Wt. 1 lb..... Each 2.80

cellent solvent. 16-oz. aerosol.

due. 6-oz. aerosol can.

MAGNETIC HEAD CLEANER
Type 10-620. Removes dirt and oxide build-up. Won't harm tape, tape coating or paint finish. Handy 16-oz. aerosol can.

796-3600, Wt. 1 lb..... Each 3.10

796-3615. Wt. 1 lb..... Each 1.63

ALL-PURPOSE LUBE OIL

Type 10-916. Penetrates smallest

areas in any equipment-ball bear-

ings, gears, etc. High-grade, light

machine oil, thorough lubrication.

SILI-SPRAY

Type 10-600. Amazing fine silicon lubricant. Light lubricant film that lasts and lasts-won't leave residue. 6-oz. aerosol can. 796-3599. Wt. 6 oz.... Each 2.10

COLOR TV TUNER CLEANER

Type 64-2320. Improves reception and protects moving parts. Just spray into set's tuner. Keeps TV in good condition inexpensively. 910-5827. Wt. 8 oz..... Each 1.39

TV/RADIO SERVICE CEMENT

Type 30-2. Cement parts to chassis. repair plastic cabinets. Fast-setting, clear-drying, firm bond. For speaker, general repair.

796-3625, Wt. 1 lb..... Each 1.25

STRIP-X

Type 26-2. Liquid chemical quickly removes enamel Formvar, etc., from magnet wire. Just dip wire, wait 30 seconds, wipe insulation off.

796-3620. Wt. 2 oz.... Each 1.58

RED INSULATING VARNISH

Type 90-2. An alkyd base compound which dries to a glossy hard film which is moisture, oil, chemical resistant. 2 oz. bottle.

796-3670, Wt. 2 oz.... Each 1.33

RECORDING HEAD CLEANER

Type 53-2. A powerful, quick-drying solvent to remove oxide and dirt from recording and playback heads of tape decks, recorders. 796-3650. Wt. 2 oz..... Each 1.90

HI-VOLTAGE INSULATOR

Type 50-12. Over 20,000-volt di-electric strength. Stops troublesome corona shorts. Prevents costly repairs. Prevents leakage. 796-3645. Wt. 1 lb..... Each 3.65

CHLORO-KLEEN

Type 213-16. An amazing, new powerful solvent for all purpose cleaning of any component. Nontoxic, safe, very potent cleaner. 796-3680. Wt. 1 lb..... Each 3.55

PLASTIC CEMENT

Type 32-2A. Produces excellent bond on thermo-plastic, e.g. acetate, butyrates, etc., and a good bond on vinyl, phenolics, etc. 796-3630. Wt. 2 oz..... Each 1.25

ALL-PURPOSE GLUE

Type 43-2. Use for joining plastics; wood. rubber, glass. 2 oz. Strong and fast drying. Instructions for making invisible bond.

796-3640. Wt. 4 oz.... Each .97

Silicone Sealants, Greases and Compounds

A COMPLETE LINE OF SILICONE RUBBER ADHESIVE/SEALANTS

Colors and Uses

A complete family of one-package RTV adhesives and sealants in a wide range of colors—each suited to a particular application. Available in both thixotropic (paste-like) and pourable forms for a variety of applications. Provide simple, fast bonding; excellent mechanical qualities. Each of these compounds offers distinct engineering advantages. See Colors, Typical Uses and Specifications below and select just the right RTV compound for your particular application, Note: RTV adhesives and sealants are also available in economical larger sized containers. Contact Allied for prices and delivery.

Application	Product	Color	Typical Use
General Purpose			
Thixotropic	RTV-102	White	Affixing name plates
Thixotropic Thixotropic Thixotropic	RTV-103 RTV-108 RTV-109	Translucent	Rubber repair See through insulation Metal bonding
Extreme High Temp.	RTV-106	Red	Critical "high-temp" use
General Purpose Industrial Use Pourable	RTV-112	White	Brushing or spraying on a production line basis
High Strength Thixotropic	RTV-154	Gray	Bonding and Sealing in unusual and industrial applications

Specifications	102	163	106	108	103	112	118	118	154
Color	Wht.	Black	Red	Trans.	Alum.	Wht.	Red	Trans	Grey
Consistency		Soft, S	pread	ble Thi	xotropi	Self	Leveli	ng	Thixotropic
Hardness Shore A Durometer	30	30	33	30	30	30	26	22	32
Tensile Strgth. psi ratings	350	350	350	350	350	300	445	450	850
Elongation, %	400	400	400	400	400	300	350	430	800
Tear Resistance die B, lb./in.	45	45	50	45	45	25	51	33	130
Dielectric Strength v/mil	500	500	500	500	500	500	500	500	500

RTV CARTRIDGE PACK

Speeds up production-line sealing. Type RTV 102 white silicone rubber, excellent for shock-mounting. Type 108 translucent silicone rubber, for use where "see-through" is required. Need no catalyst. Apply at room temp. Use with any standard caulking gun, or automatic dispenser.

		Oz.			EACH	
Stock No.	RTV Type	RTV per Co Type Unit	Color	1- 11	12- 47	48- Up
798-0205 798-0214	102 108	12 12	White Trans.		3.67 3.67	

SILICONE RUBBER ADHESIVE/SEALANTS IN SQUEEZE TUBES

- Simple, Fast Application
- Complete—No Catalyst Needed
- Never Harden, Crack or Dry Out
- Resist Extreme Temperature Variations

Ready-to-use silicone rubber ad-Ready-to-use silicone rubber ad-hesive/sealants for industrial ap-plications. In squeeze tubes, they are easily applied and alr cured to form a durable, flexible silicone rubber. Need no catalyst. Applied at room temperature, adhere with-out priming. For use as insulation, bonding silicone rubber parts to metal surfaces, encapsulating, many other uses.

Withstand —75°C to +300°C. Highly durable — never harden, crack or dry out. Resist moisture, weathering and aging. No solvents and cures with a minimum of shrinkage. Electrical properties. Note: see charts above for applications, and experifications. cations and specifications.

Type	3-Oz. Tube		EACH				
RTV-	Stock No.	1-11	12-47	48-Up			
102	788-0203	2.52	1.94	1.50			
103	798-0206	2.52	1.94	1.50			
108	798-0212	2.52	1.94	1.50			
106	798-0210	3.48	2.32	1.99			
112	793-0216	3.38	2.25	1.95			

Type	12-Oz. Tube		EACH				
RTV-	Stock No.	1-11	12-47	48-Up			
102	758-0204	9.77	6.53	5.18			
103	798-0208	9.77	6.53	5.10			
108	798-0213	9.77	6.53	5.10			
106	798-0211	13.55	9.05	7.74			
112	798-0217	13.55	9.05	7.74			

HIGH STRENGTH SILICONE RUBBER

TYPE RTV-154 GRAY COLOR

- · Cures to a High Strength Solid that Holds to any Surface
- **Excellent Mechanical Qualities** • Encapsulating and Potting
- · For Professional or Hobby Use

Now you can easily affix any decorative object to any surface without the need of time consuming drilling and screws . . provides fast, lasting attachment. 3 oz.

TYPE G-64 I HEAT SINK COMPOUND



- Withstands Temperature
- · Maintains Positive Heat Seal

Greaselike silicone material heavily filled with heat-conductive metal oxides. Combinations of base and fillers produces a material with higher thermal conductivity than previously available silicone heat sink compounds. Applies to base of mounting studs of components. Will not dry out, harden or melt. Withstands long term exposure to temperatures up to 200°C. Compound maintains positive heat seal that improves heat transfer from the device to heat sink of chassis. Actually increases life expectancy and overall efficiency of circuit component. Evaporation, 1% after period of 24 hours at temperature of 200°C. Sold in 8-oz. container. Shop, wt. 8 oz. Greaselike silicone material heavily filled Shpg. wt. 8 oz. 798-0111. 1-11. . Ea. 5.63 12-Up. . Ea. 3.76

SILICONE GREASES AND COMPOUNDS

AVAILABLE IN 2 AND 8-OZ. TUBES

Applications ranging from special service lubricants to high-thermal conducting compounds for electronic components. Withstand temperatures from —100° to 450°F; won't smoke, melt or char. Odorless, coloriess; apply direct from tube. Non-corrosive, water repellent. Won't solidity, oxidize, evaporate. No excessive bleed losses.

2-0z. T	ube	EACH			
Stock No.	Туре	1-	12- 47	48- Up	
798-0107 798-0109 798-0100 798-0105	G-623 G-624 G-322 G-351	2.15 2.13 3.00 2.13	1.48 1.41 2.00 1.41	1.27 1.15 1.42 1.15	

- G-623—Water repellent coating/seal.
- G-624—Excellent component insulator.
- G-322—Lubricant for slow oscillating or rotary motion applications.
- G-341—Bearing lubricant for use in adverse atmospheric environments.
- G-351—Bearing lubricant for extreme —40° to +400°F.

8-0z. T	ube	EACH				
Stock No.	Туре	1-	12- 47	48- Up		
798-0108 798-0110 798-0102 798-0104 798-0106	G-623 G-624 G-322 G-341 G-351	5.20 5.75 8.37 6.37 6.37	3.47 3.69 6.56 4.96 4.96	2.70 2.85 4.20 3.25 3.25		

RTV SILICONE RUBBER SEALANTS/COMPOUNDS

RTV-616 Potting Compound



Black silicone, low viscosity liquid cures within 15-30 min. at room temp., without air, with addition of curing agent. Forms tough, trans. solid. Temp. range: -65°C to +200°C. High dielectric strength. Compound and curing agent. One-pound can. Wt. 1 lb. 798-0604. 1-11.Ea. 14.12 12-Up.Ea. 9.44

RTV-615 POTTING COMPOUND

RTV-615 POTTING COMPOUND
Clear silicone, low viscosity liquid that cures at room temp., after addition of curing agent, to form a rubber-like, tough, transparent solid. Cures within 15-30 minutes at 150°C. Cures in absence of air. Temp. range: —65°C to +200°C. High dielectric strength. Compound and curing agent. One-pound can. Shpg. wt. 1 lb. 798-0218. 1-11. Ea. 16.25 12-Up, Ea. 10.85

- Low and Medium Viscosities
- Encapsulating and Potting

TYPE RTV-11 ENCAPSULANT

White, low viscosity silicone rubber base with excellent deep section curing characteristics. Shpg. wt. 1 lb. 798-0200. 1-11. Ea. 13.40 12-Up. Ea. 9.10

TYPE RTV-41 ENCAPSULANT

White, medium viscosity silicone rubber base that cures readily in deep sections to high durometer, high strength rubber. Shpg. wt. 1 lb. 798-0201. 1-11. Ea. 10.90 12-Up. Ea. 7.50

TYPE RTV-60 ENCAPSULANT

Red, medium viscosity silicone rubber base that cures readily in deep sections to a high durometer, high strength rubber. Has excellent high temperature resistance being usable for short periods to 600°C. Shpg. wt. 1 lb. 600°C, Shpg. wt. 1 lb. 798-0202, 1-11, Ea. 10.90 12-Up, Ea. 7.50

EXTRA HIGH STRENGTH RTV-630 SILICONE RUBBER MOLDING COMPOUND







Consists of Kit Containing Silicone Rubber Base Compound, "Part A", and Catalyst, "Part B". Cure by Mixing 10 Parts of "A" to 1 Part "B by Weight. Ideal for Both Short-Run or Production Line Applications.

Extra high strength, blue molding com-pound that is excellent for short-run or prototype parts, thermotoring punch dies, intricate molding and embossing precise production of detail. Kit includes silicone

rubber base compound (A) and catalyst (B). Cure by mixing 10 parts "A" to 1 part "B" by weight. May be used with automatic equipment. Ideal for production line.

Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. To assure the fastest and most accurate service, please specify manufacturer's type number and stock number on each order. Depend on Allied for prompt off-the-shelf delivery in industrial quantities for all your electronic needs. Contact the nearest Allied Electronics facility for information on prices and delivery on quantities larger than shown. See page 3, for complete list of Allied offices, from coast-to-coast.

LIGHTED DEVICES INDEX

Edge-Card Mini-Lite Assemblies Solar Systems 69	Light Control Devices 71 Intermatic 71 Optical Couplers 8 Fairchild 28 Solar Systems 69 Opto-Electronic Relays 71 Opto-Isolators 71 Clairex 70 Photobridges Solar Systems Solar Systems 67	Photocell Lamp Modules Clairex .70 Solar Systems 68 Photocells Clairex .70 Solar Systems 68, 69 Photochopper Cells Clairex .70 Photomod Clairex .70 Photomod Clairex .70 Photomod .70 Photomod .70 Photomod .70 Photomod .70	Photopotentiometers Solar Systems
Spectronic27	Solar Systems		Solar Systems67

SILICON READOUT AND SOLAR CELL CROSS REFERENCE LIST

IPC	Controlah	SOLAR	BCA.	SOLAR	CLAIREY	SOLAR	NATIONAL	SOLAR	VACTEC	SOLAR
IRC SPR-4-10PL SPR-5-10PL SPR-6-10PL SPR-7-10PL SPR-8-10PL SPR-9-10PL SPR-9-10PL S1020E4PL S1020E6PL S1020E6PL S1020E6PL S1020E6PL S0510E5PL S0520E6PL S0505E5PL S0505E5PL S0505E5PL S0505E5PL S0505E5PL S0505E5PL S0505E5PL	Centralab HPC-4 HPC-5 HPC-6 HPC-7 HPC-8 HPC-9 HPC-10 N120CG-8L-VC 110CL-VC 52CL-VC 51CL-VC 55CL-VC 58CL-VC	SOLAR SSR-4-001 SSR-5-001 SSR-6-001 SSR-6-001 SSR-9-001 SSR-10-001 SSR-10-001 SS-10-8LC SS-10-8LC SS-11LC SS-12LC SS-12LC SS-21LC SS-22LC SS-23LC SSG-30LC SSG-30LC SSG-30LC SSG-30LC SSG-30LC SSG-30LC SSG-30LC SSG-30LC	RCA 4403 4404 4448 4453 7163 SQ2503 SQ2520 SQ2521 SQ2526 SQ2527 SQ2556 SQ2527 SQ2556 SQ2527 SQ2556 SQ2528 SQ2538 SQ2538 SQ2538 SQ2538 SQ2538 SQ2538 SQ2555 SQ2555 SQ254441	SOLAR MPY-25H38 MPY-25H49 MPY-25H49 MPY-25H49 MPY-25H49 MPY-25H49 MPY-12H59 MPY-12H28 MPY-12H28 MPY-12H39 MPY-12H39 MPY-12H39 MPY-17H39 MPY-7H79 MPY-7H69 MPY-7H79 MKY1-7H37 MPY-7H37 MPY-7H69 MPB2-7H39 MPB2-7H49 MPB2-7H49	CLAIREX CL5M2 CL5M4 CL904 CL5M5 CL5M5 CL705L CL905 CL705HL CL905HL CL5M7 CL707 CL707 CL707 CL707 CL907 CL907 CL907 CL907 CL907HL CL907HL CL907HL CL907HL	SOLAR MPY-12H59 MPY-12H28 MKB-4H38 MPY-12H49 MPY-12H28 MKY1-7H38 MPY-4H79 MKY1-7H39 MPY-4H79 MFY1-7H26 MPY-4H79 MKY1-7H26 MPY-4H79 MFY-4H79 MFY-4H79 MFY-7H26 MPY-4H69 MKB1-7H28P MPY-7H39 MPY-7H49 MPY-7H49 MPY-7H49	NATIONAL NSL384 NSL387 NSL4467 NSL4467 NSL461 NSL462 NSL463 NSL465 NSL465 NSL465 NSL481 NSL481 NSL482 NSL483 NSL484 NSL491 NSL491 NSL492 NSL493 NSL495 NSL495 NSL497 NSL497	SOLAR MKB-7H38 MKB-7H69 MPY-25H49 MPY-25H38 MPY-5H69 MPB2-5H59 MKY1-5H39 MPY-5H79 MPY-7H69 MKY1-7H39 MKY1-7H39 MKY1-7H39 MKY1-7H39 MKY1-7H39 MY-7H79 MPY-7H79 MPS2-12H49 MY-12H39 MPY-12H28 MPY-12H39 MPY-12H39 MPY-12H39 MPY-12H39	VACTEC VT-10L VT-101 VT-101H VT-102L VT-121 VT-122L VT-132 VT-141 VT-201 VT-201 VT-204 VT-211 VT-212L VT-212L VT-301 VT-302 VT-303 VT-312H VT-313L	SOLAR MPY-12C28 MPY-12C39 MPY-12C49 MPY-12C49 MPY-12C49 MPY-12C49 MPY-12C49 MPY-12C49 MPY-4H69 MPY-4H69 MPY-4H79 MKY1-4H37 MKY1-4H37 MKY1-7H37 MPB2-4H48 MPB2-7H69 MPY-7H69 MPY-7H69 MPY-7H69 MPY-7H69 MPY-7H69
S2900E9.5M S2900E11M	2AL-VC	SSG-30LC SSG-30LC	SQ2544 SQ2544V1 SQ2535 SQ2543 NOTI has dis	MPB2-7H39 MPB2-7H49			NSL496 NSL497	MPY-12H49 MPY-12H39	VT-303 VT-312H	MPY-7H79 MPY-7H69

PHOTOBRIDGE — DISPLACEMENT DETECTOR FOR SERVO MECHANISMS



Stock			Mat	1.22.1.1	EACH		
No.	Туре	Max.	Response	mat.	1-9	10-99	100-Up
945-2701	MB-1101	. 25	6000A	CdS	6.36	5.10	3.76
945-2751	MB-1151	25	7000A	CdSe	6.36	5.10	3.76



Forward Characteristics: Load Current, 270 μ A min.; Load Voltage, 270 mV min.; Short-Circuit Current, 400 μ A min.; Open-Circuit Voltage, 325 mV min. Dark Reverse Characteristics: Dark Leakage Current, 10 μ A and .05 V max. Offer higher electrical outputs, lower reverse current and better stability at higher temperatures. Ideal for use in punched card systems, paper tape readers and many control applications.

Stock	Mfr's	No.	Overall Lgth.	Center to Center	Active Area Dim.		EACH	
No.	Туре	of Pos.	(in.)	Spacing (in.) B	In. (min.)	1- 9	10- 99	100- Up
945-8009 945-8010	SSHR-9-001 SSHR-10-001	9	0.900	0.100 0.100	.140x.080 .140x.080	19.32 15.38	15.38 16.90	13.88 15.04

SILICON PHOTOVOLTAIC CELLS

Minimum Output
Voltage of
0.4 Volts





ALL TYPES HAVE MINIMUM OUTPUT VOLTAGE OF 0.4 VOLTS Tungsten light source illumination equivalent to 100 mw/cm²; color temperature of 2800° K. All leads are 6 inches $\pm \frac{1}{4}$ inch long, stripped and tinned $\frac{1}{4}$ inch $\pm \frac{1}{6}$ inch long unless otherwise requested. All units are coated with "SOLA-SEAL" epoxy protective coating to protect junction surfaces, prevent contamination of active surface and to insure stable dark reverse characteristics.

Stock	Mfr's	Dimen.	mA	Conversion		EACH	
No.	Туре	LxW (In.)		Efficiency	1- 9	10- 99	100- Up
945-1004 945-1006 945-1008 945-1010	SS-10-4LC SS-10-6LC SS-10-8LC SSG-10-10LC	.4 x .8 .4 x .8 .4 x .8 .4 x .8	28 32 36 44	4 6 8 10	4.34 4.74 7.23 14.00	3.48 3.94 5.98 11.22	1.97 2.31 3.59 6.65
945-1011 945-1012 945-1020 945-1021 945-1022	SS-11LC SS-12LC SS-20LC SS-21LC SS-22LC	.4 x .4 .2 x .4 .8 x .2 .4 x .2 .2 x .2	14 7 12 6	6 6 6 6	3.76 2.89 6.07 3.18 3.04	3.00 2.32 4.86 2.54 2.42	2.02 1.56 3.01 1.68 1.45
945-1023 945-1030 945-1031 945-1003 945-1050	SS-23LC SSG-30LC SS-31LC SSG-40LC SS-50LC	.088 x .2 1.130 Dia. 1/4 SSG-30LC .8 x .8 1.0 x .2	1.5 75 18 60 15	6 6 6 6	2.18 11.57 4.63 14.50 7.09	1.74 9.26 3.70 10.12 5.66	1.04 6.83 2.20 8.10 3.30

When selecting a photoconductive cell for any given application, it is important to determine what characteristics of the cell would be the governing factors. If for a switching circuit, it's necessary to evaluate its response time and tolerable power dissipation first, and its sensitivity considered second. But, in case of an exposure meter which measures brightness, sensitivity and spectral response will have to be evaluated before tolerable power dissipation. Check specifications and characteristics listed above before making your selection.

Stock	Mfr's	Volt-	Nom.		EACH	
No.	Туре	age	Curr.	1-9	10-99	100-Up
945-9100	SPM-75-2	2 V	320 mA	91.85	82.66	74.39
945-9102	SPM-75-4	. 4 V	160 mA	91.85	82.66	74.39
945-9104	SPM-75-8	8 V.	80 mA	91.85	82.66	74.39
945-9106	SPM-75-16	16 V	40 mA	91.85	82.66	74.39
945-9110	SPM-100-2	2 V	480 mA	105.21	94.68	85.21
945-9112	SPM-100-4	4 V	240 mA	105.21	94.68	85.21
945-9114	SPM-100-12	12 V	80 mA	105.21	94.68	85.21
945-9116	SPM-100-24	24 V	40 mA	105.21	94.68	85.21
945-9120	SPM-150-2	2 V	720 mA	133.60	120.24	108.21
945-9122	SPM-150-6	6 V	240 mA	133.60	120.24	108.21
945-9124	SPM-150-12	12 V	120 mA	133.60	120.24	108.21
945-9126	SPM-150-18	18 V	80 mA	133.60	120.24	108.21
945-9128	SPM-150-36	36 V	40 mA	133.60	120.24	108.21

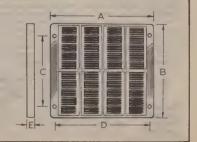
NEW!

· All Waterproof Coating

SOLAR POWER MODULES

Silicon solar cells convert sunlight directly into electricity. Cells in each panel are totally encapsulated in transparent silicon rubber within a Lexan case. Output power and voltage drops when panel a temperature rises; short circuit current remains constant. Mounting holes at each end.

DIMENSIONS	A	В	С	D	E
SPM-75	5.750	4.820	2.820	5.150	0.440
SPM-100	7.710	4.820	2.820	7.250	0.440
SPM-150	8.000	7.000	4.000	7.400	0.440



Light-Sensitive Devices

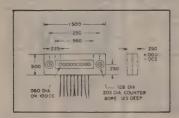
TYPE SS-200 SILICON POWER PHOTOCELL



Instant electrical energy from sunlight and incandescent light sources. Light falling on the surface is converted directly into electrical energy. Compact, designed for easy installation and use, and are readily wired in series or parallel. Unique design allows max. power per unit area. Terminals plainly marked for polarity and the entire unit is glass covered to protect from dirt, moisture and damage. Characteristics based on illum. of 100mw/cm².

011	804-1-	Mfr's Load		Power			
Slock No.	Mfr's Type	Voltage	Current (Min.)	(Min.)	1- 9	10- 99	100- Up
945-2004	SS-200D	.4 V	60 mA	150 mW	27.05	21.98	19.66

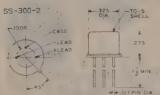
TYPE SSRC BLACK "LEXAN" READOUT CASE

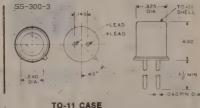


For card and punch tape readers. Standard diameter holes of .08" on .1 inch centers offer columinated light effect that reduces problems due to cross talk and external light interference. Optically clear glass covers entire active area of the cell. Strain free leads. Leads cannot be torn free from the readout cells. Sealed case provides a dust free unit insuring long life. Molded readout case made of black "LEXAN" polycarbonate resin.

Stock .	Mfr's	Description		EACH	
No.	No. Type	Description	1-9	10-99	100-Up
945-9001	SSRC01	Readout Case	7.23	5.78	3.59

TYPE SS-300 SILICON CONTROL PHOTOCELLS

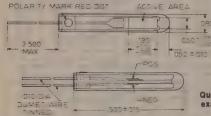




Forward: Load current: 370 μ A min.; Load Voltage: 370 mV min.; Open Circuit Voltage: 400 mV min.; Short Circuit Current: 1100 μ A min. Reverse: Dark Current (—0.5 VDC): 20 μ A max., typ.; at 1000 FTC; 1100 μ A min. Hermetically sealed; easy mounting; high sig.-to-noise ratio.

Stock	Mfr's	Can	2000	EACH			
No.	Type	Style	Base	1-9	10-99	100-Up	
945-3002 945-3004	SS-300-2 SS-300-4	TO-5 TO-11	3 Pin 3 Pin	11.57 11.57	9.26 9.28	6.65 6.65	

SS-400 GLASS ENCAPSULATED HERMETICALLY SEALED PHOTOCELL





Quality engineered to meet the most exacting specifications. Outstanding test conditions on all levels.

This glass encapsulated, hermetically sealed silicon photo cell assembly provides a rugged unit that can be readily handled and at the same time assure highest performance standards. For computers, card sorters, card-tape readers or simple counting circuits. TEST CONDITIONS: Forward Characteristics: Color temperature, 2800° K tungsten. Illumination level, 1250 FTC. Load resistance, 1000 ohms. Dark Reverse Characteristics: Illumination level, less than 1 FTC. Test voltage, —1.0 VDC. Hermetically sealed to insure proper protection from dirt, moisture and any adverse atmospheric condition or abusive damage.

Stock No.	Mfr's	Output Voltage min. mV	Dark Reverse Current max. µA	EACH			
	Type			1- 9	10- 99	100- Up	
945-4001 945-4002 945-4004 945-4007	SS-400-1 SS-400-2 SS-400-4 SS-400-7	300 300 250 200	5 10 10	10.85 10.12 8.25 5.05	8.68 8.10 6.60 4.04	4.92 4.74 3.88 2.55	

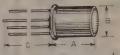
SS-500 MINIATURE SILICON PHOTOCELL IN TO-18 PACKAGE



Usable as PN or NP junction. By operating the cell with reverse voltage, the diode in the equivalent circuit is essentially eliminated from the circuit, and the cell is extremely temperature stable. Test at 1000 FTC tungsten. Forward open circuit, 390 mV minimum. Forward short-circuit, 900 μA minimum. Hermetically sealed to insure proper protection from dirt, moisture and any adverse atmospheric condition or damage.

Stock	Mfr's	Fwd. Los	du Ollul.	Dark Reverse NP		EACH	
No.	Type	min. mV	min. μA	@0.5 VDC max. μA	1-9	10-99	100-Up
945-5000	SS-500	350	350	10	10.85	8.68	5.79

NEON AND TUNGSTEN LAMP PHOTOCELL-LAMP MODULES



2. Lifetime is defined to end when lamp current changes more than 10%.



 Photo-Conductive
 Used as Audio Isolator Type Design

MCN is axial lead, neon. MCL is axial lead type. MTL radial leads and package similar to TO-5.

*Price Code-see Price Table below

	DIMENSIONS	(inches)	
	A	8	C
MCN	.860	,360	1.00
MCL	.860	.360	1.00
MTL	.473	.363	1.00

Stock	Mfr's	P	Lamp		Cells				Response time ⁴	
No.	Туре	C e *	Volt.	Curr. mA	ON¹ Res. Ω	ON ² Res. kΩ	OFF ³ Res. MΩ	Max. Pwr. Dis. mW		Decay msec.
945-0716 945-0721	MCL-702A MCL-716A MCN-721A MCL-723C	CDBD	3 5 100 10	16 30 1.9 16	400 500 400 250	4.0 6.0 3.0	1 10 5 5	80 200 200 200	16 8 1 8	100 40 40 60
945-0726	MTL-716A MTL-726A MTL-703C	000	5 5 10	30 30 16	150 60 200	1.8 0.7 3.0	10 5 5	150 150 70	6 6 8	60 60 60
		N4	DTES					PRI	CES	

1) At 100% of rated V and ± 50% tolerance.
2) At 50% of rated V and tolerance +100% -5%.
3) 10 sec. after turning off lamp.
4) The time which conductance (1/resistance) of ce reaches 63% (rise) or 37% (decay) of maximul value in the circuit with 10k ohms resistance in series
5) Max. voltage of photoconductive cells is 150 VDC.

	C	ode	1-	10-	100- 499	500- Up
m s.		BCD	2.83	2.26	1.74 1.78 2.02	1.49

TYPES A AND B SELENIUM PHOTOVOLTAIC CELLS

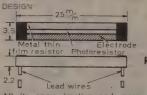




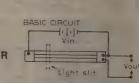
TYPE SHAPE 1.77 Diameter 1.18 Diameter 1.50 H x .71 W .532 H x 1.02 W 1.46 H x 1.14 W Circle Circle Rect. Rect. A-1 A-3 B-2 B-4 B-5 Rect.

The perfect photovoltaic cell for lux meters, exposure meters for cameras, colorimeters, density gauges, and many other industrial and commercial applications. Visual response is that of a human eye. Note: Illumination, 10-foot candles; external load resistance, 1000 ohms (series resistance plus internal resistance of meter); ambient temperature, 25°C

Stock	Mfr's	Output Current	Peak Spectral	EACH			
		Minimum (Microamps)		1-9	10- 99	100- Up	
945-1411	A-1	90	5650 A	5.15	3.18	2.60	
945-1413	A-3	50	5650 A	4.37	2.66	2.02	
945-1422	B-2	55	5650 A	1.97	1.45	1.16	
945-1424	B-4	30	5650 A	1.22	.87	.75	
945-1425	B-5	90	5650 A	2.22	1.74	1.27	



РНОТО-POTENTIOMETER



All its name implies and more. Photo-potentiometer functions as a potentiometer controlled by light. Output voltage changes according to shifting a slit of admitting light. And as already mentioned above, no mechanical contact means longer life. Continuous shape of electrode permits good resolution. High input voltage to output convertible ratio.

Stock	Mfr's	Applied	Spectral		E		
No. 945-1601	Type	Volts Max.	Response	MAT	1-9	10- 99	100- Up
945-1601 945-1651 945-1652 945-1653	MPC-1001 MPC-1051 MPC-1052 MPC-1053	25 25 15 15	5900-A 7000-A 700-A 700-A	CdS CdSe CdSe CdSe	6.36 6.36 19.20 19.20	5.10 5.10 17.00 17.00	3.76 3.76 14.25 14.25

-1.098

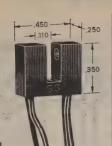
SSOS-700 OPTICAL

SWITCH

- Long Life
- Solid State Reliability
- Hermetically Sealed Components
- 10" Long Leads
- Solid State Switching
- Complete Electrical Isolation Between LED and Photo Transistor

Consists of a light emitting diode (LED) activating a photo transistor across a .120" gap. Solid state switching: complete solid state interface provided between mechanical motion and logic circultry. Has 10" leads (#28 gauge PVC) for mounting flexibility. One mounting hole and locating pin. DTL and TTL compatibility. High switching speed. Operating temperature: -65° to +100°C. Reverse breakdown: 6 volts. Size: .450 x.250 x.350".

Stock	Mfr's	For	Forward Forward		EACH			
No.	Type	Curr. mA Typ. Max.		Voitage Typ. Max.		1- 9	10- 99	100- Up
945-9150	SSOS-700	50	100	1.3	1.5	11.35	9.04	8.50



SSOS-800 OPTICAL **SWITCH**



- · Hermetically Sealed Components
- Solid State Switching
- Long Life
- 10" Long Leads
- Full Electrical Isolation

Optical switch consists of a light emitting diode (LED) activating a photo transistor across a .120" gap. Offers long life and solid state reliability. 10" leads (#28 gauge PVC). Complete electrical isolation between LED and photo transistor. Complete solid state interface provided between mechanical motion and logic circuitry. DTL and TTL compatibility. High switching speed. Operating temperature: —65° to +100°C. Reverse breakdown voltage: 6 V. Size: 1.05 x.30 x.50".

Light-Sensitive Devices

Stock	Mfr's	Forward Forward Voltag				EACH			
No.	Tune				1-	10- 99	100- Up		
945-9160	SSOS-800	50	100	1.3	1.5	11.35	9.04	8.50	

SS9102 EDGE CARD MINI LITE ASSEMBLY

- Gallium Arsenide Phosphide LED
- Can Be Driven From DTL and TTL Logic
- High Reliability
- Compact Design

Light emitting diode can be used as a fault indicator for troubleshooting complex PC boards. Applications include: logic state indicator; binary data display; indicator light. Compact design permits dense packaging; units can be mounted 10 units to the inch. Pln spacing compatible with DIP sockets. Designed for soldering into PC boards. Built-in series resistor. Gold plated leads. Capacitance: 1 pF typical. Brightness: 100 ft.-L min. Black case. Size: .560x.098x.375" overall.

150

Stock	Mfr's		Reverse		EACH	
No.	Type	Curr. mA Typ. Max.		1-9	10- 99	100- Up
945-9170	SS9102	3.0 3.2	100	3.10	2.48	2.43

CdS and CdSe PHOTO CELLS AL CEDIEC

			HEE WILL								
Otenk	Beenla	Light	Dark	Max. Power Max.			EACH				
Stock No.	Mfr's Type	resist. (A) (KΩ)	resist. (B) (MΩ)	Dissipation (25°C mW)		1-9	10- 99	100- 499	500- Up		
945-4179 945-4137 945-4148 945-4159 945-4138	MKY1-4H27 MKY1-4H48 MPB2-4H59	100-200 5-10 10-20 20-50 5-10	20 0.5 1 10 50	60 50 50 60 50	200 150 150 200 150	1.87 1.87 1.87	1.50 1.50 1.50 1.50 1.50	1.10	.87 .87 .87 .87		

5H SERIES

945-5126	MPY-5H69 MKY1-5H26 MKB-5H38	50-100 2-5 5-10	30 0.2 100	120 50 75	200 100 150	1.70	1.04 1.36 1.58	.58 .69 .93

7H SERIES

945-7126 945-7138	MPY-7H59 MKY1-7H26 MKY1-7H38 MKB-7H38	20-50 2-5 5-10 5-10	20 0.1 0.5 100	200 80 80 150	150 150 150 150	1.75 1.75	1.36 1.40 1.40 1.62	.93 .98 .98 1.16	.69 .87 .87 .93
			4011 07	-0150					

12H SERIES

945-1139	MPY-12H46 MPY-12H39 MPY-12H59	10-20 5-10 20-50	0.6 2 10	500 500 500	300 200 300	2.22	1.78	1.20 1.20 1.20	1.05

25H, 25R SERIES

845-2449 MPY-25R49 10-20 945-2459 MPY-25R59 20-50 945-2538 MPY-25H38 5-10 945-2549 MPY-25H49 10-20	5 10 5 5	750 750 1000 1000	500 500 800 800	1.50 3.20			
--	-------------------	----------------------------	--------------------------	--------------	--	--	--

5C, 7C SERIES

	MPY-5C79 MPB2-7C39	100-200 5-10	50 3	100 150	200 150	1.12 1.17			
400 CMM1M2									

12C SERIES

343-1443 Mr 1-120-3 10-20 300 1.12 .30 .30 .4	945-1728 MPY-12C2 945-1739 MPY-12C3 945-1749 MPY-12C4	39 5-10	1 2 5	200 300 300	200 200 300	1.12 1.12 1.12	.90 .90	.58 .58 .58	.46 .46
---	---	---------	-------	-------------------	-------------------	----------------------	------------	-------------------	------------

	E SER	IES (Ecc	nomical 1	Гуре)				
MKY1-5C38E MPY-12C49E	7.5† 15†	0.3	45 300	150 200	.87 .92	.70 .74	.52 .55	.42 .45

(A) Color temperature of light source is $2850\,^{\circ}$ K. (B) Dark resistance is measured 10 seconds after intercepting 40 FTC light. †Tolerance of light resistance is 60%.

RESPONSE TIME (Table at Right)

In Tables Above: H in Mfr's Type indicates metal can hermetically sealed; C and R indicate plastic en-capsulated. Measurements at 25°C ambient temp.

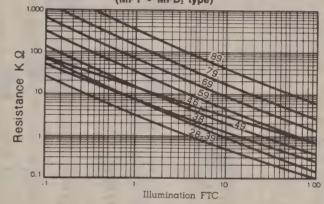
1) Response time indicates	
time which conductance (1/	
resistance) of cell reaches	
63% (rise) or 37% (decay)	
of max, value in circuit	
with series resistance 1/100	
of cell resistance.	

	3.1	·C	10 FC		
Mfr's Type	Rise time	Decay time	Rise time	Decay time	
MPY type CdS MKY1 type CdS MPB2 typeCdS, CdSe MKB type CdSe				30 msec 6 msec	

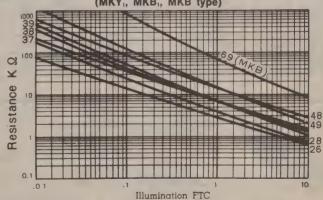
2) In the practical circuit, higher illumination gives faster response time. Larger series resistance gives faster rise time and slower decay time. Longer dark storage slows rise time.

3) The data shown are approximate values of each material listed and may be changed according to the resistance factor or other vertibles.

LIGHT RESISTANCE VS. ILLUMINATION (MPY • MPB, type)

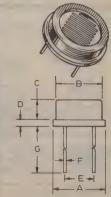


LIGHT RESISTANCE VS. ILLUMINATION (MKY, MKB, MKB type)



DIMENSION TABLE (All Dimensions in Inches)

Series	A	В	С	D	Е	F	G
4H	.210	.180	.135	.020	.100	.012	1.0 min
5H	.260	.220	.140	.024	.140	.012	1.5 min
MKB-7H*	.365	.320	.145	.035	.215	.016	1.5 min
MKY-7H	.365	.320	.135	.035	.215	.016	1.5 min
MPY-7H	.365	.320	.170	.035	.215	.016	1.5 min
12H	.600	.525	.180	.050	.335	.018	1.5 min
25H	1.235	1.150	.295	.065	.750	.040	.4 min
25R	1.170		.350		.600	.016x.160	.325
5C	.200		.140		.155	.014	1.0 min
7C	.320		.165		.220	.016	1.0 min
12C	.470		.120		.315	.020	1.3 min

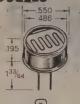


Photocells and Photocell Products

CdS AND CdSe PHOTOCELLS









Type 2 CdS: Peak resp. 5150A, bluest response photosensitive material; high stability, low temp. error. Use with fluorescent and incandescent lamps. Type 3 CdSe: Peak response 7350A, fast response, high light-to-dark resistance ratio. Good for hi-speed switching, counting. Sensitive to near infrared. For incandescent or neon. Type 4 CdSe: Peak response 6900A. Good for on-off use when low resistance is desired. For incandescent or neon. Type 5 CdS: Peak response 5500A (closely matches human eye), stable, low memory photocell. Good in light measuring applications and precise low speed switching. For incandescent, neon, fluorescent. Type 5H CdS: Peak response 5500A. Uniform color temp. response. For speed switching, high-stability measuring; incandescent, fluorescent, neon. Type 7CdS: Peak response 6150A, moderate speed and ratio. Good in general beam breaking applications. Dual Element: Contains 2 separate elements with 2 leads and common lead. *Resistance at 2 fc ±33½%. †Resistance ratio from 2 fc to dark within 5 seconds. ‡Res. at 25°C (mW). §With/without heat sink. 2 oz.

Stock	Mfr's			Dia.	*Resist.	Max. Res.	Max.	‡Power		Each	
No.	Type	Fig.	Description	хL	@ 2 fc	† Ratio	Volt.	Dissip.	1-24	25-99	100-Up
751-1700 751-1400 751-1301 751-1701 751-1702	CL602 CL503 CL5M3 CL603 CL603A	B A D B	Type 2 CdS Type 3 CdSe	.25x.5 .5x.5 .55x.18 .25x.5 .25x.5	1 meg 7.2k 7.2k 133k 75k	1:100 1:10,000 1:10,000 1:10,000 1:10,000	300 250 250 300 300	75 500/250§ 2000/500§ 75 75	2.16 2.55 2.43 3.02 3.02	1.58 1.58 1.50 1.84 1.84	1.21 1.31 1.25 1.58 1.58
751-1703 751-1902 751-1903 751-1904 751-2404	CL603AL CL703 CL703A CL703L CL903	BCCCE	Type 3 CdSe	.25x.5 .35x.18 .36x.18 .36x.18 .21x.15	3.5k 133k 67k 2.7k 133k	1:10,000 1:10,000 1:10,000 1:10,000 1:10.000	170 300 300 100 250	75 125 125 125 50	3.02 2.43 2.43 2.43 2.43	1.84 1.50 1.50 1.50 1.50	1.58 1.25 1.25 1.25 1.25
751-2402 751-2403 751-1402 751-1302 751-1403	CL903A CL903L CL504 CL5M4 CL504L	E A D A	Type 3 CdSe Type 3 CdSe Type 4 CdSe Type 4 CdSe Type 4 CdSe Type 4 CdSe	.21x.15 .21x.15 .5x.5 .55x.18 .5x.5	67k 6k 1.5k 1.5k 0.25k	1:10.000 1:10.000 1:1000 1:1000 1:1000	250 100 250 250 250 170	50 50 500/250§ 2000/500§ 590/250§	2.43 2.43 2.55 2.43 2.55	1.50 1.50 1.58 1.50 1.58	1.25 1.25 1.31 1.25 1.31
751-1303 751-1704 751-1705 751-1907 751-1908	CL5M4L CL604 CL604L CL704 CL704L	DBBCC	Type 4 CdSe Type 4 CdSe Type 4 CdSe Type 4 CdSe Type 4 CdSe	.55x.18 .25x.5 .25x.5 .36x.18 .36x.18	0.25k 30k 1.5k 30k 0.6k	1:1000 1:1000 1:1000 1:1000 1:1000	170 300 170 300 100	2000/500§ 75 75 125 125	2.43 3.02 3.02 2.48 2.43	1.50 1.84 1.84 1.50 1.50	1.25 1.58 1.58 1.25 1.25
751-2405 751-1404 751-1304 751-1707 751-1913	CL904L CL505 CL5M5 CL605L CL705L	E A D B C	Type 4 CdSe Type 5 CdS	.21x.15 .5x.5 .55x.18 .25x.5 .36x.18	2k 9k 9k 7.5k 3.3k	1:1000 1:100 1:100 1:100 1:100	100 250 250 170 100	50 500/250§ 2000/500§ 75 125	2.43 2.36 2.23 2.36 2.23	1.50 1.58 1.50 1.58 1.50	1.25 1.21 1.15 1.21 1.15
751-2410 751-2409 751-1912 751-2407 751-2408	CL905 CL905L CL705HL CL905HL CL905HN	EECEE	Type 5 CdS Type 5 CdS Type 5 H CdS Type 5H CdS Type 5H CdS Type 5H CdS	.21x.15 .21x.15 .36x.18 .21x.15 .21x.15	166k 10k 28k 100k 700k	1:100 1:100 1:1000 1:1000 1:1000	250 100 100 100 100	50 50 125 50 50	2.23 2.23 2.90 2.60 2.60	1.50 1.50 1.50 1.50 1.50	1.15 1.15 1.35 1.35 1.35
751-1306 751-1916 751-1920 751-1917 751-1919	CL5M7 CL707 CL707L CL707H CL707HM	00000	Type 7 CdS	.55x.18 .36x.18 .36x.18 .36x.18 .36x.18	7.2k 133k 2.7k 500k 100k	1:1000 1:1000 1:1000 1:1000 1:1000	250 300 100 300 250	2000/500§ 125 125 125 125 125	2.23 2.23 2.23 2.60 2.60	1.50 1.50 1.50 1.50 1.50	1.15 1.15 1.15 1.35 1.35
751-1918 751-2415 751-2414 751-1396 751-1890	CL707HL CL907HN CL907HL CL502 CL702L/2	CHEAC	Type 7H CdS Type 7H CdS Type 7H CdS Type 2 CdS Type 2 CdS Dual	.36x.18 .21x.15 .21x.15 .5x.5 .36x.18	10k 300k 24k 55k 46k	1:1000 1:1000 1:1000 1:100 1:100	100 100 100 250 100	125 50 50 50 500/250 125	2.60 2.60 2.60 3.05 2.36	1.50 1.50 1.50 2.10 1.58	1.35 1.35 1.35 1.63 1.21

-.210 ---183--

PHOTOCHOPPER CELLS

Maintain high efficiency over wide temperature range and eilminate warm-up time. Efficiency levels, in spite of SPDT configuration, are 72% at 1 kHz, 93% at 400 kHz, and 98% at 60 Hz. Efficiency change from 28°C to 60°C is less than 15%. Range: -50°C to +75°C. Rated 50 mW at 25°C. Conductive glass windows and third lead is grounded to case for shielding. Size is .210 x .150". Shipping wt. 2 oz.

					EACH	
Stock No.	Mfr's Type	Res. ON Ohms	Res. OFF Ohms	1- 24	25- 99	100- Up
751-2412	CL906CS	82k	8 megs	4.45	2.54	1.91

DESIGNER'S PHOTOCELL KIT



includes a selection of five CdS and CdSe Includes a selection of five CdS and CdSe photocells for many projects. CdS types includes: CL505, which closely matches human eye response; CL707, for general beam-breaking; CL902, for linear resistance versus light-level response (smallest hermetically sealed unit). CdSe types includes: CL603A, high speed; CL704L, sensitive—66 ohm resistance at 100 fc. Shpg. wt. 5 oz. 751-3300. 1-9. ... Each 18.75

PHOTOMOD® PHOTOCELL-LAMP MODULE



Clairex high stability photocells in photocell-lamp modules. Ideal for use in automation and data processing systems.

Rugged potted package. For maximum efficiency, the cells are optically coupled to the lamps. Operating temperature, 20 °C to 75 °C. Maximum power dissipation 50 mW at 25 °C. Maximum cell volts, 120 volts with lamp off. †Maximum voltage for 5000-hour life. *Neon lamps are of the "high-rightness" type. Their brightness, on an equal life basis is approximately ten times that of the standard brightness. In table below, Rise Time is the time required to reach 100% of on-resistance from off condition; tested after lamp has been on 24 hours. 1%" long by %" dia, Wt. 1 oz.

		Max.	Rise	Lamp		EACH			
Stock No.	Туре	ON Ohms	Time Seconds	†Volt.	mA	1- 24	25- 99	100- Up	
751-0400 751-0206	CLM3006A CLM4006A CLM3012A CLM4012A	160 55 160 30	.060 .080 .080 .080	6V 6V 12V 12V	40 40 40 40	4.40 4.40 4.40 4.40	2.45 2.45 2.45 2.45 2.45	1.76 1.76 1.76 1.76	
751-0300	CLM-5012 CLM3120A CLM4120A	400 1150 160	.065 .005 .005	12V 120V 120V	40 2.5* 2.5*	4.40 4.40 4.40	2.45 2.45 2.45	1.76 1.76 1.76	

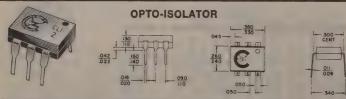
Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. To assure the fastest service, please specify manufacturer's type number and Stock No. on your order. Contact the nearest Allied Electronics facility for information on prices and delivery on quantities larger than shown.

COLOR DOT ALL LEADS .019 DIA.

PHOTOMOD® LED-PHOTOCONDUCTOR ISOLATORS

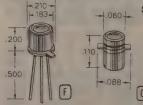
Solid-state lamp with photoconductive cell. CLM6000 low power, low resistance, noiseless switching. Interfaces TTL to TTL providing complete isolation. CLM8000, 8500 sealed device will operate on line voltage to drive SCR, Triacs from TTL output.

Stock	Mfr's	If max.	Vf max	Cell Vmax	P@25°C	Ron	Roff		EACH	
No.	Туре	m A				Max	Min	1-24	25-99	100-Up
751-4300	CLM6000	40	2.0	60	50	250	500k	6.00	2.90	1.95
	CLM8000		3.2	220	125	400	500k	7.75	3.75	2.50
751-4500	CLM8500	80	2.8	- 220	125	2k	10 meg	8.50	4.15	2.90



CLI-2. Min. transfer ratio 30%, max. 100%. Isolation 1500V. Operating junction temp: +100C max. Emitter. GaAs diode, Pt 100mW@25°C, derate linearly 1.33 mW/c. Vg. 3 max. I*PC 60 mA cont. max. Detector. NPN Si Planar phototransistor. Pt 200mW@25°C., derate 2mW/c. Vebo 50 max. Vebo 6 max. Ic 200mA max. BVebo 50(Ic 1ma, IF 0).

		Detector	Coup	EACH			
Stock No.	Mfr's Type	Iceo (nA) @ If O, Vce 10V	DC Transfer Ratio% @If 10mA, Vce 10V	tr or tf (μsec.) RL 190 Ω, Ice 2mA Vcc 10V	1- 24	25- 99	100- Up
751-5000	CLI-2	25nA	30 min 100 max	5 max	8.63	4.50	3.70



SILICON NPN PLANAR EPITAXIAL **PHOTOTRANSISTORS**

Fig. F TO-18, Fig. G ideal for PC. 1c 200mA. CLT2010-2020. Hermetic. High lilumination sensitivity, stable. Pt 250mW. tr/tr 3 µsec. Window. CLR2060. Darlington flat window. Pt 250mW. tr 100 µsec. tr 150. CLR2180. Darlington lens. Pt 250mW. tr 100, tr 150. CLT3030. Flat window. Pt 50mW. tr/tr 1.5. CLT3170. Lens. Pt 50mW. tr/tr 1.5.

Stock	Mfr's		IL (mA) min/max	BVceo min	Vce (SAT)		EACH	
No.	Type	Fig.	@ Conditions	@ Ic	@ lc mA	1-24	25-99	100-Up
751-2540			0.2/0.6 @ Vce 5,H 5mW/cm ²	50 @ 0.1mA	0.30 @ 10	3.63	1.89	1.22
751-2550			0.4/1.2 @ Vce 5,H 5mW/cm ²	30 @ 0.1mA	0.30 @ 10	3.88	2.02	1.31
751-2060	CLR2060	F	1.4/4.0 @ Vce 5, H 0.2mW/cm ²	40 @ 0.1mA	1.0 @ 10	5.27	2.74	2.11
751-2520	CLR2180	F	0.6/ @ Vce 5,H 0.02mW/cm ²	40 @ 0.1mA	1 @ 10	5.63	2.91	2.25
751-3030				40 @ 0.1mA	0.3 @ 0.4	6.53	3.87	2.61
751-3170	CLT3170	G	2.0/ @ Vce 5,H 5mW/cm ²	40 @ 0.1mA	0.3 @ 0.4	6.37	3.70	2.55

Photoelectric and Opto-Electronic Relays

LIGHT CONTROL DEVICES

The photoelectric cell measures the amount of natural light present. When natural light falls below prescribed level, cell turns on lights. When required amount of natural light is present again, cell turns off light. There's nothing to set, nothing to adjust.

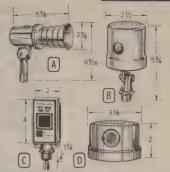
(6) TYPE K1111. Photo control with adjustable stem. Adjustable stem permits mounting at almost any angle up to 80°. All models equipped with light selective louvers and three, eightinch color coded leads. Activation: 4-8 FC On, 6-14 FC Off. Size: 5¼ x 2½". Shpg. wt. ½ lb.

(A) TYPE K1611. Photo Control-Par lamp Holder. Completely automatic outdoor spot for decorative or flood lighting. External switch leg provides automatic control of a light cluster with a maximum total of 1000 watts. Activation: 3-5 FC On, 7-10 FC Off. Size: 6-9/16 x 27% x 65%". Shpg. wt. 1 lb.

(C) TYPE K1811. Relay type controls are enclosed in a small, epoxy coated die cast aluminum housing. Activation: 2-7 FC On, 5-12 FC Off. Size: 4 x 1¾ x 2". Shpg. wt. ¾ lbs.

(C) TYPES K2011 and K2311. Compact Heavy Duty Controls. Hermetically sealed in a die cast epoxy coated aluminum housing. Type K2311 is T rated to carry incandescent loads up to 3000 watts. Activation: 1½-3 FC On, 5-9 FC Off for K2011—2-5 FC On, 8-12 FC Off for K2311. Size: 4 x 1¾ x 2". Shpg. wt. ¾ ibs.

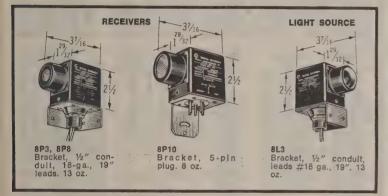
(D) TYPE K1221. Thermal Twist Lock. Can be used for street lighting, obstruction or small airport lights. High capacity sealed CDS cell housed in 1 piece inolded case. Equipped with a standard 3-prong NEMA twist and lock type plug. Activation: 2.5 FC On, 5.5 FC Off. Size: 2 x 31/8". Shpg. wt. 1/2 lb.



Stock No.	Mfr's Type	Fig.	Volts	Watts	Hz	EACH
818-1005	K1111	B	105-130	650	60-50	19.95
818-1040	K1611	A	105-130	1000	60-50	16.95
818-1042	K1811	C	120	1800	60	15.45

Stock No.	Mfr's Type	Fig.	Volts	Watts	Hz	EACH
818-1044	K2011	CDC	120	1800	60-50	12.45
818-1045	K1221		105-130	1500	60-50	15.45
818-1048	K2311		105-130	3000	60-50	20.95

INTEGRAL AND REMOTE PHOTORELAY SYSTEMS



INTEGRAL 2-PART SYSTEMS

High-Speed Types 8P8 and 8P10. Gives up to 1200 operations per minute with a maximum range of 12 feet. Has resistive rating of 5 amps maximum at 28 volts DC or 115 volts AC, and 2.5 amps at 230 volts AC. Provides up to 100 million mechanical operations. Types 8P8 and 8P10 have SPDT contacts.

General Purpose Type 8P3. Will provide up to 600 operations per minute. Has a 10-amp resistive rating at 28 volts DC or 115 volts AC, and 5 amps at 230 volts DC. Designed to give up to 10 million mechanical operations. Operates up to 12 feet from light source. Has SPDT contact arrangement.

Light Source 8L3-115. All three systems above may be used with your own light source, or with the 8L3-115 Light Source listed in the table below. Leads are #18 AWG, with an average 18" length. Operating temperature range +32° to +122°F. 2½x1-29/32x3-11/16".

Stk. No.	Туре	Mounting and Size	Wt.	EACH
917-0268 917-0260	8P10-115 8P3-115	½" conduit fitting, mtg. bracket. 2½x1 ⁷ /1ex3 ⁷ /1e" 5-pin plug. 2½x1 ³⁹ /2x3 ³ /1e" ½" conduit fitting, mtg. bracket. 2½x1 ²⁹ /2x3 ¹¹ /1e" Light source for 3 types listed above	13 oz. 8 oz. 13 oz. 13 oz.	73.83 35.58

8P7-8L7 Each 1½ x 5% dia.; 1 mtg. hole .120 dia.; 1 mtg. slots for # 6 screws. Depth: 8A, 3 %; 8A3, 25%. 2 lbs. 8P4 2½ x 1" dia. 2.9 oz. 1 mtg. hole 5½ dia.; 1 mtg. slot 5½ w.

REMOTE 3-PART SYSTEMS

Subminiature Receiver 8P7 with 8L7 Light Source. Light gives a 12" beam for 10 operations per second. Lamp life is rated for up to 4000 hours of operation. Leads are #22 AWG, averaging 10" in length. Each, unit only 1½". long, and 5/16" in diameter. Av. Wt., 1 oz.

Miniature Receiver 8P4 with 8L4 Light Source. Provides a maximum operating range of 25 feet, for 10 operations per second. Light source has an adjustable focus. 10" long #18 AWG leads. 3 oz.

8A Amplifier-Relay Control. Solid-state. Has plug-in replaceable DPDT relay. 5A @ VDC or 115/230 VAC. Source voltage 115-230 VAC. Operating temperature range, +32° to +122°F. Shpg. wt. 2 lbs.

NOTE: Each system must include an 8A Amplifier Control, and the appropriate Light Source shown in table below. Amplifier Control Housing optional. Av. 9 lbs. Write for prices on quantities of 25 up.

Stock No.	Type	Mounting	EACH
917-0264	8P7	Lead wires, mounting bracket	25.55
917-0258	8L7	Light source for 8P7 above	18.54
917-0262	8P4	%" conduit fitting, mtg. bracket	28.12
917-0256	8L4	Light source for 8P4 above	25.55
917-0250	8A	Amp. relay control, chassis only Control Housing, 11½x10½6x4¼"	105.34
917-0098	AT373-1		27.74

TYPE 8R MINIATURE LOW-PRICED PHOTORELAYS

Stock	Mfr's	EACH					
No.	Туре	1-9	10-49	50-74	75-Up		
917-0272 917-0274	8RC01A 8RC02A	32.00 32.00	25.60 25.60	24.27 24.27	23.00 23.00		

Allows 120 cycles/minute switching. Plug-in units fit standard 5-pin socket; SPDT relay contacts rated 3 amps at 28 VDC/115VAC. May be used for beam-breaking or fluctuating-intensity applications. 8RC01A: Has %" light-sensitive

aperture, picks up at 5 fc, drops out at .1 fc. 8RC02A: Has plastic shield with 3/32'' aperture for positive operation under high ambient light, picks up at 5 fc, opens at .5 fc. -40° to $+140^\circ$ F. U.L. Recog., C.S.A. Listed. 115 V, 60 Hz. 3 oz.



DATACEL® SERIES 301...1, 2 AND 4-POLE OPTO-ELECTRONIC RELAYS

• For High-Density Printed Circuit Packaging

• On-Off Indication in Plug-In Models

• High Isolation Between Input and Output

EACH Stock RL Cell Туре Up 917-1404 917-1405 917-1406 917-1408 5.18 5.18 5.18 3.11 400 917-1409 917-1417 917-1418 917-1415 301R2-24 8.10 1.58 4.86 40 301T1-6B1 301T1-12B1 301T1-120A1# 400 400 400 1.00 1.00 1.00 .95 .95 12 120 1.58 1.98 500 3000 400 200 1.98 3.00

Solid-state opto-electronic relays for AC or DC use. Signal applied to the input is coupled by means of light to one, two, or four independent photoconductive cells. Type 301T is lead-type; Type 301R for high-density printed circuit packaging or solder terminal mounting with AD32-1 socket. High-reliability switching in data processing, logic circuits. Applications in noiseless audio level control, tremolo circuits, RC oscillator tuning, low frequency modulation, step-less potentiometer, triac and SCR drivers, and test equipment. Temperature range: —40°C to +50°C. Output voltage rating: 250 V AC or DC peak. 301R1, 301R2 have 8 pins. *6, 12, and 24-volt inputs are incandescent lamps. 120, 150 volt inputs are neon. Sizes, 301R, 1x½x½/*; 301T, 1½x¼x¾/*, †Use 33k ohm resistor in series with Input. #Use 47k ohm. Shpg. wt. ½ oz.



Indicator Lights

SUB-MINIATURE INDICATOR LIGHTS

Mounts from front of panel In .193" clearance hole; \(\frac{\pi_0}{20} \) maximum panel thickness. Sealed, moisture and dust-proof; T-1 bulb is permanently enclosed. High impact translucent plastic cap. Stovepipe style lens. Wire leads. Anti-rotation construction. Rating: 5 volts at .06 A (60,000 hours, life). Conforms to MiL-L-3661B and Drawing MS25446. Choice of lens colors.

Stock	Type	Type	Lens	EACH		
No.	252-	6026-	Color	1-9	10-Up	
770-1267 770-1268	9951-0971 9951-0972	001-704R 001-704G	Red Green	6.10	4.88	
770-1269	9951-0973	001-704A	Amber	6.10	4.88	

¾" ROUND LENS CAP

For use with panel mounting switches and matching indicators. Non-rotatable design; friction fit. Solid color, translucent face and sides.

Stock .	Mfr's		EACH		
No.	Type	Color	1-9	10-Up	
770-1120	188-1471	Red	2.00	1.60	

ULTRA-MINIATURE CARTRIDGE HOLDERS

Mounts from rear of panel in %" diameter hole; %2" maximum panel thickness. Phosphor bronze, gold plated terminals. With screw-on collar. Less cartridge. Back of panel projection: %4" except \$60.00 (for use with type 4537 and 4538 neon cartridges).

Stock	Type Mitr's		Termi	EACH		
No.	508-	Type	nais	1-9	10-Up	
770-1609 770-1610 770-1612	7538-504 7545-504 8745-504	4426-001 4426-007 4428-007	Solder cup Solder cup* Turret*	2.82 2.82 2.82	2.26 2.26 2.26	

ULTRA-MINIATURE LED INDICATOR LIGHT

Mounts from back of panel in %" hole; %6" maximum panel thickness. Cylindrical stovepipe lens. Turret terminals. IC compatible. Low power requirements. Rated 5 VDC, 20 mA. Includes solid state Diode-Lite light source, housing and transparent lens.

Stock	Mfr's	Lens	EACH		
No.	Туре	Color	1-9	10-Up	
770-2451	249-7868-3731-504	Red	4.67	3.74	

OILTIGHT INCANDESCENT ENCLOSED INDICATOR LIGHTS

Mounts from front of panel in 11/6" diameter hole; 13/2" maximum panel thickness. Accepts T-31/4 miniature bayonet lamp; rated 2-55 volts AC. Meets MIL-L-3661 requirements. Screw-in cap. Lamp not included. Black nickel finish. Choice of screw or solder terminals.

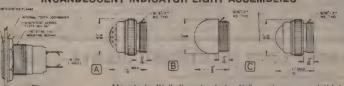
SOLDER LUG TERMINALS

Stock	Type	Type Type		EACH		
No.	95-0410-	X5201-	Color	1-9	10-Up	
770-0529 770-0530	0931-201 0932-201	222-303R-B/A 222-303G-B/A	Red Green	2.74	2.19	

SCREW TERMINALS

Stock No. 95	Type Type		Lens	EACH		
	95-1310-			1-9	10-Up	
770-0542	0931-201	223-303R-B/A	Red	2.89	2.31	
770-0543	0932-201	223-303G-B/A	Green	2.89	2.31	

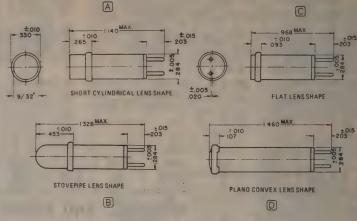
INCANDESCENT INDICATOR LIGHT ASSEMBLIES



Mounts In ${}^{1}\!\!\!\!/_{16}{}''$ diameter hole; ${}^{4}\!\!\!\!/_{16}{}''$ maximum panel thickness. Accepts T-2 TSB lamp (not included); 6-120 volts AC. Screw-in cap. Solder terminals, Fig. A Is stovepipe lens (internal fluted); B, convex back-frosted; C, translucent stovepipe.

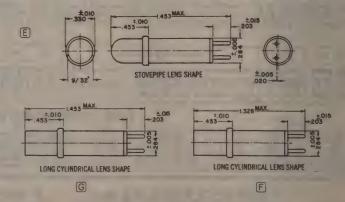
Stock	Mfr's	Тура	Lens	Lens	EACH		
No.	Тура	5201-	Type	Color	1-9	10-Up	
770-0336	52-1059-3191-102	492-326A	A	Red	3.10	2.48	
770-0424	81-1059-0111-102	492-101R	B	Red	3.16	2.53	
770-0536	95-1059-3171-102	492-307R	C	Red	3.10	2.48	
770-8537	95-1059-3172-102	492-307G	CCCC	Green	3.10	2.48	
770-0538	95-1059-3173-102	492-307A		Amber	3.10	2.48	
770-0539	95-1059-3174-102	492-307B		Blue	3.10	2.48	
770-0540	95-1059-3175-102	492-307W		White	3.10	2.48	

INCANDESCENT PLUG-IN DATALAMP CARTRIDGES



Aluminum housing with clear anodized finish. Stainless steel pins mounted in nylon insulated header, offset to provide polarization. Heat-resistant, high-strength plastic lens. Is permanently attached to open end of the housing. Fig. A has short cylindrical lens shape; Fig. B is stovepipe lens; Fig. C is flat lens; Fig. D is plano convex lens. Available for 6.3, 14 or 28-volt operation. All types include wire-lead T-134 lamps.

Stock	Mfr's Type	Mfr's		Design	Candle-		EA	CH
No.	507-	Туре	Fig.	Voltage	power	Color	1-9	10-Up
770-1552	3907-1471-600	16-607R	A	6.3	.03	Red	3.65	2.92
770-1553	3907-1472-600	16-607G	A	6.3	.03	Green	3.65	2.92
770-1550	3907-1475-600	40.0070	A	6.3	.03	White	3.65	2.92
770-1557 770-1562	3909-1471-600 3914-1471-600	13-607R	A	6.3	.40	Red	2.84	2.27
		14-607R	A	14.0	.30	Red	3.00	2.40
770-1563	3914-1472-600	14-607G	A	14.0	.30	Green	3.00	2.40
770-1564 770-1566	3914-1473-600 3914-1475-600	14-607Y 14-607W	A	14.0	.30	Yellow	3.00	2.40
770-1500	3918-0371-600	17-507R	C	14.0 28.0	.30	White Red	3.00	2.40
770-1574	3918-0372-600	17-507G	Č	28.0	.30	Green	2.80	2.24
770-1575	3918-0373-600	17-507Y	C	28.0	.30	Yellow	2.80	2.24
770-1576	3918-0375-600	17-507W	C	29.0	.30	White	2.80	2.24
770-1577	3918-1471-600	17-607H	A	28.0	.30	Red	2.80	2.24
770-1578	3918-1472-600	17-607G	A	28.0	.30	Green	2.80	2.24
770-1579	3918-1473-600	17-607Y	A	28.0	.30	Yellow	3.02	2.42
770-1580	3918-1475-600	17-607W	Α.	28.0	.30	White	2.80	2.24
770-1567	3917-1471-600	11-607R	A	28.0	34	Red	2.57	2.06
770-1568	3917-1472-600	11-607G	A	28.0	.34	Green	2.57	2.06
770-1569	3917-1473-600	11-607Y	A	28.0	.34	Yallow	2.57	2.06
770-1570	3917-1474-600	11-607B	A	28.0	.34	Blue	2.57	2.00
770-1571	3917-1475-600	11-607W	A	28.0	.34	White	2.57	2.06
770-1572	3917-1476-600	11-607Y	A	28.0	.34	Lt. Yellow	2.57	2.06
770-1520	3917-0971-600		В	28.0	.34	Red	2.57	2.06
770-1521	3917-0972-600		В	28.0	.34	Green	2.57	2.06
770-1523 770 1593	3917-0975-600 5824-0747-600		B	28.0	.34	White	2.57	2.06
770 1593	3024-0/4/-000		U	20.0	.34	Clear	3.22	2.58



NEON PLUG-IN DATALAMP CARTRIDGES

High brightness cartridge with bullt-in neon lamp for 110-125 VAC or 105-125 VAC/VDC operation. Aluminum housing with clear anodized finish. Stainless steel pins mounted in nylon insulated header, offset for polarization. Heat-resistant, high-strength plastic lens; permanently attached to open end of housing. Fig. E is stovepipe lens; F, long cylindrical lens; G, long cylindrical lens.

Stock	Mfr's Type	Mfr's		Design	Lamp		EA	CH
No.	507-	Туре	Fig.	Voltage	No.	Color	1-9	10-Up
770-1587	4538-0931-610	5-703R	E	110-125 AC	A1C	Red	2.77	2.22
770-1588	4538-0933-610	5-703A	E	110-125 AC	A1C	Yellow	2.77	2.22
770-1590	4538-1551-610	5-803R	F	110-125 AC	A1C	Red	2.77	2.22
770-1591	4538-1533-610	5-803A	F	110-125 AC	A1C	Yellow	2.77	2.22
770-1584	4537-1531-640	2-803R	F	105-125 AC/DC	1AB	Red	2.77	2.22
770-1585	4537-1533-640	2-803A	F	105-125 AC/DC	A1B	Yellow	2.77	2.22
770-1586	4537-1537-640	2-803C	F	105-125 AC/DC	A1B	Clear	2.77	2.22
770-1533	3835-1531-600	1-803R	G	105-125 AC/DC	NE-2E	Red	2.06	1.64

Indicator Lights

WITH FIXED FLANGE I/16" PAMEL THICKNESS (REF) INTERNAL TOOTH LOCKWASHER

17/32"-32 NS THD.

Series 101

Series 162, 137 /M"PANEL THICKNESS IDEE) INTERNAL TOOTH LOCKWARNER -3/52"X9/16" ACROSS FLATE

PROTECTION
BACK OF PANEL
MAX PANEL THICKNESS 3/16 Transparent Lens

> 21" MAX. **Translucent Lens**

43" MAX.

INSULATED INDICATOR LIGHTS

Series 101. Mount from front of panel in $\frac{17}{32}$ " hole; $\frac{1}{4}$ " max. panel thickness. Takes T-1 $\frac{3}{4}$ midget flange base bulb; 1.35-28 V. Stovepipe lens. Solder terminals. Phe-

Stock Mfr's			EACH		
No.	Туре	Color	1-9	10-Up	
770-0633 770-0634 770-0637	101-5030-0971-201 101-5030-0972-201 101-5030-0931-201	Red Green Red	3.12 3.12 3.12	2.50 2.50 2.50	

Series 162-8430. Mount in ½" hole. Front of panel insertion with fixed flange. 180° visibility. Accept T-1 ¾ lamps; 1.35-28 V. Phenolic insulation. Anti-rotation design. † Suffix of MIL No. MS2526-.

TRANSPARENT LENS TYPE

Type	Type		Lens	EA	411
62-8430-	5131-038-	†	Color	1-9	10-Up
931-502	303R-I/L	6	Red	2.82	2.25
932-502	303G-I/L	4	Green	2.82	2.25
0933-502	303A-I/L	2	Amber		2.25
		8			2.25
					2.25
934-502	303B-I/L	12	Blue	2.82	2.25
	1931 - 502 1932 - 502 1933 - 502 1937 - 502 1975 - 502	9931-502 303R-I/L 1932-502 303G-I/L 1933-502 303A-I/L 1937-502 303C-I/L 1937-502 303W-I/L	931-502 303R-I/L 6 1932-502 303G-I/L 4 1933-502 303A-I/L 2 1937-502 303C-I/L 8 1975-502 303W-I/L 10	931-502 303R-I/L 6 Red 1932-502 303G-I/L 4 Green 1933-502 303A-I/L 2 Amber 1937-502 303C-I/L 8 Clear 1975-502 303W-I/L 10 White	931-502 303R-I/L 6 Red 2.82 1932-502 303G-I/L 4 Green 2.82 1933-502 303A-I/L 2 Amber 2.82 1937-502 303C-I/L 8 Clear 2.82 1975-502 303W-I/L 10 White 2.82

TRANSLUCENT LENS TYPE 0971-502 0972-502 304R-I/L 304G-I/L

Series 137 Neon Indicators with Omnidirectional Lens. Uses T-2 neon lamp with built-in 62k resistor, except Type 137-8864-0931-512 uses NE-2J (C9A) lamp with 22k resistor; Type 137-8864-0931-532 uses NE-2J lamp with 33k resistor for long life. Lamps not included.

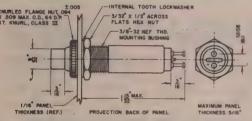
770-0915

770-0916 770-0917

0973-502

Stock	Type	Type		EACH		
No.	137-	5133-	Color	1-9	10-Up	
770-0820 770-0821 770-0822 770-0823 770-0827	8836-0931-552 8836-0933-552 8836-0937-552 8864-0931-512 8864-0931-532	048-703R-I/L 048-703A-I/L 048-703C-I/I. 058-703R 058-703R	Red Amber Clear Red Red	4.70 4.70 4.70 4.97 4.97	3.76 3.76 3.76 3.98 3.98	

PERMANENT NEON INDICATOR LIGHTS

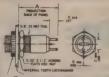


Ultraminiature lights mount from rear In %" hole; %6" max. panel thickness. 105-125 V AC-DC. Standard brightness with built-in 100k resistor. Turret terminals. Cylindrical lens except * stovepipe lens.

Stock	Type Type		Lens	EACH		
No.	249-7841-	R118T-	Color	1-9	10-Up	
770-1240 770-1250 770-1251 770-1252 770-1254	0931-574 1431-574 1433-574 1435-574 1437-574	303R 603R 603A 603W 603C	Red* Red Amber White Clear	3.70 3.70 3.70 3.70 3.70	2.97 2.97 2.97 2.97 2.97	

ULTRAMINIATURE INCANDESCENT UNITS

Mount in 3%" hole from back of panel; 1½2" max. panel thickness. Cylindrical lens. Turret terminals. 115-125 VAC. Fresnel lens. Screw-on cap



Stock	Mfr's	Lens	EACH	
No	Type	Color	1-9	10-Up
770-1260 770-1261 770-1262	250-8758-3331-504 250-8758-3332-504 250-8758-3333-504	Red Green Amber	4.15 4.15 4.15	3.32 3.32 3.32

SUBMINIATURE LIGHT HOLDERS

Mount from front of panel in 14/2" hole (except * from front or rear in 1/2" hole); 1/4" max. panel thickness. Accepts T-1 4/4 midget flange base bulb; 1.35-28 V. Round lens. Friction-filt cap. Solder terminals. Anti-rotation design.



10.00.00			
770-1037	183-9730-14-602	 2.38	1.90
770-1038	183-9830-14-604°	2.38	1.90

NEON INDICATORS WITH **BUILT-IN RESISTORS**

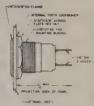




LIGHTED DEVICES

Series 95-0408, 95-0463. For T-31/4 neon lamp (B1A or B2A, as indicated below). Meet MIL specs. Stovepipe iens. 21/16/7 long. 11/2/7 max. panel thickness. U.L. Component Program-Recognized. C.S.A. Listed. Solder terminals. AC-DC operation. Series 95-9108, 95-9163. Same as above but plastic head, phenolic body. U.L. Component Program-Recognized.

Series 52-0408, 52-0463. Fluted stovepipe lens. MIL-L-3661. $11/h_{\rm K}^{\prime\prime}$ max. panel thickness. Solder terminals. Type 52-0408 has 56k resistor for B1A (NE-51) lamp; 52-0463 has 22k resistor for B2A (NE-51H) high-brightness lamp. Series 52-1308, 52-1363. Same as above, but screw terminals.



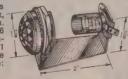
							E A	CH
Stock No.	Mfr's Type	Mfr's Type	Lens Fig.	Lens Color	Bulb Type	Voltage Range	1-9	10-Up
770-0545 770-0525 770-0526 770-0528 770-0553	95-9108-0931-142 95-0408-0931-241 95-0408-0933-241 95-0408-0937-241 95-9163-0931-112	X5201-242-303R X5201-242-303R-AND X5201-242-303A-AND X5201-242-303C-AND 5100-832-303R	A A A A A	Red Red Amber Clear Red	B1A B1A B1A B1A B1A	105-125 105-125 105-125 105-125 105-125	2.50 3.16 3.16 3.16 2.50	2.00 2.53 2.53 2.53 2.00
770-0554 770-0532 770-0533 770-0322 770-0323	95-9163-0993-112 95-0463-0931-211 95-0463-0933-211 52-0408-0991-241 52-0408-0993-241	5100-832-303A X5201-232-303R-AND X5201-232-303A-AND X5201-242-323R-AND X5201-242-323A-AND	A A B B	Amber Red Amber Red Amber	B1A B2A B2A B1A B1A	105-125 110-125 110-125 105-125 105-125	2.50 3.16 3.16 3.16 3.16	2.00 2.53 2.53 2.53 2.53 2.53
770-0324 770-0331 770-0332 770-0333 770-0334	52-0408-0995-241 52-0408-0997-241 52-0463-0991-241 52-0463-0993-211 52-0463-0995-211	X5201-242-323W-AND X5201-242-323C-AND X5201-232-323R-AND X5201-232-323A-AND X5201-232-323W-AND	B A A	White Clear Red Amber White	B1A B1A B2A B2A B2A	105-125 105-125 110-125 110-125 110-125	3.16 3.16 3.16 3.16 3.16	2.53 2.53 2.53 2.53 2.53
770-0343 770-0344 770-0345 770-0347 770-0348	52-1308-0991-241 52-1308-0993-241 52-1308-0995-241 52-1363-0991-211 52-1363-0993-211	X5201-243-323R-AND X5201-243-323A-AND X5201-243-323W-AND X5201-233-323R-AND X5201-233-323A-AND	A A B B	Red Amber White Red Amber	B1A B1A B1A B2A B2A	105-125 105-125 105-125 110-125 110-125	3.38 3.38 3.38 3.18 3.18	2.70 2.70 2.70 2.54 2.54

OPEN INDICATOR ASSEMBLIES

21" MAX

1" OPEN PLATED ASSEMBLY

Mounts in 1" dia. hole. Lens diameter, 1". Flat, convex, faceted lens. Solder terminals. Type 3214 accommodates S-6 incandescent bulb with can-delabra screw base. Type 3241 accommodates T-3½ miniature bayonet base bulb. Voltage:



Stock	Mfr's	Lens	EACH		
No.	Type	Color	1-9	10-Up	
770-1430	502-3214-0431-302	Red	2.97	2.38	
770-1431	502-3214-0432-302	Green	2.97	2.38	
770-1432	502-3214-0433-302	Amber	2.97	2.38	
770-1440	502-3241-0431-302	Red	2.84	2.27	
770-1441	502-3241-0432-302	Green	2.84	2.27	
770-1442	502-3241-0433-302	Amber	2.84	2.27	

1/2" MINIATURE OPEN TYPE

Mounts in 11/16" hole. 1/2" lens diameter. Convex, faceted lens. Accommodates T-31/4 midget bayonet base bulb; 2 to 55 volts. Bulb is removable from front. Solder terminals.



-	Stock	Stock Type		Lens	EACH	
	No.	502-8136-	Mfr's Type	Color	1-9	10-Up
	770-1444 770-1448	2131-102 2133-102	20-113R 20-113A	Red Amber	1.94	1.55 1.55 1.55
_	770-1450	2135-102	20-113W	White	1.94	1.33

OPEN-TYPE BAYONET INCANDESCENT LIGHT HOLDER

Miniature bayonet socket for T-3½ lamp. Requires 1%6'' mounting hole in panels to %4'' thick. Less lamp.

Stock	Type Mfr's		Lens	EACH	
No.	502-8140-	Type	Color	1-9	10-Up
770-1451 770-1452 770-1453		50-113R-I/L 50-113G-I/L 50-113A-I/L	Red Green Amber	2.26 2.26 2.26	1.80 1.80 1.80

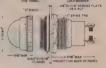
LENS CAP ASSEMBLY

Stovepipe shape cap for panel mounting, or for use with open assemblies. %6'' -27 thread; %6'' shank length.

Stock	Mfr's	Lens	EA	CH
No.	Type	Color	1-9	10-Up
770-0501	95-0931	Red	.44	.35

OIL-TIGHT ASSEMBLIES

Series 103-3502. Accepts S-6 beries 103-3302. Accepts S-6 bayonet base lamp; 6-250 V. Front-of-panel insertion in 1" hole; %" max. panel thickness. Movable screw term. Series 103-3101. Accepts S-6 candelabra screw base lamp; 6-250 V. Front-of-panel insertion in 1" hole; %" max. thickness. Movable screw term lens; back frosted.

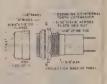


screw term. Lens: back frosted dome, or unfrosted tor-pedo faceted. Includes gasket for water and oil-tight seal.

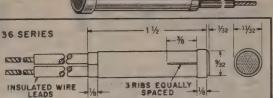
Stock	Mfr's	Lens	Lens	EACH	
No.	Type 103-	Style	Color	1-9	10-Up
770-0658	3502-1211-403	Dome	Red	7.90	4.49
770-0659	3502-1212-403	Dome	Green	7.90	4.49
770-0660	3502-1213-403	Dome	Amber	7.90	4.49
770-0662	3502-1331-403	Torpedo	Red	7.90	4.49
770-0663	3502-1332-403	Torpedo	Green	7.90	4.49
770-0664	3502-1333-403	Torpedo	Amber	7.90	4.49
770-0650	3101-1331-403	Torpedo	Red	7.16	5.73
770-0651	3101-1332-403	Torpedo	Green	7.16	5.73
770-0652	3101-1333-403	Torpedo	Amber	7.16	5.73
770-0654	3101-1211-403	Dome	Red	7.16	5.73
770-0655	3101-1212-403	Dome	Green	7.16	5.73
770-0656	3101-1213-403	Dome	Amber	7.16	5.73
770-0657	3101-1235-403	Dome	White	7.16	5.73

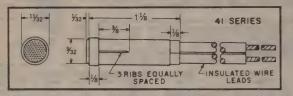
OIL-TIGHT INDICATOR LIGHTS

Front-of-panel mounting in 11/6" hole; %6" max. panel thickness. Accepts B2A (NE-51H) neon buib; 110-125 VAC. Stovepipe lens, solder terminals. Built-in resistor.



Stock	Type	Type	Lens	EA	EACH	
No.	125-0463-	5204-232-	Color	1-9	10-Up	
770-0729 770-0730	1191-413 1193-413	326WP-R 326WP-A	Red Amber	5.16 5.16	4.13	





MINIATURE NEON INDICATOR LIGHTS

Built-in Resistor to Suit Applied Voltage

High-brightness miniature neon indicator lamps give long reliable performance at a very low price. Wrap-ped in white nylon housing. Built-in resistor to suit applied voltage. Press-fit easily into 3/6" hole. Choose between flush-mounting or hi-hat lens; red, amber, white or clear lens. When on, all glow red. Plastic insulated 6" leads, 18-ga., stripped ½". Speed nut for maximum security. 1/3-watt at 125 V. U.L. Component Program-Recognized, C.S.A. Listed, 1 oz.

STANDARD FLUSH MOUNT							
01 1 205/2 0		0-1			EACH		
Stock No.	Mfr's Type	Color	1- 24	25- 99	100- 249	250- 499	500- Up
844-6611 844-6613 884-6615 844-6617	36N2315	Red Amber White Clear	1.40 1.50 1.40 1.50	1.03 1.10 1.03 1.10	.66 .70 .66 .70	.56 .60 .56 .60	.49 .51 .49 .51
HI-HAT WITH ALUMINUM BEZEL							

844-6405 844-6410	36EN2111 36EN2113 36EN2115 36EN2117	White	2.05 2.05 2.05 2.05	1.25 1.25 1.25 1.25	.80 .80 .80 .80	.63 .63 .63	.55 .55 .55
	FLUSH	MOUNT W	ITH AL	MUNIMU	BEZEL		
844-6425	36EN2311 36EN2313 36EN2315	Red Amber White	2.05 2.25 2.43	1.25 1.45 2.15	.80 1.00 1.65	.63 .83 1.35	.55 .75 1.15

MINIATURE INCANDESCENT INDICATOR LIGHTS



All Indicator lights listed have white housings, aluminum bezels and miniature incandescent lamps. Plastic transparent lenses. Black, #18 gauge, insulated plastic leads—6" long, stripped $\frac{1}{2}$ ". Friction fit in $\frac{1}{16}$ " mounting hole (.312). Speednuts furnished for maximum security. Recognized under Component Program of U.L. Laboratories. C.S.A. listed. Specifications: G1. 6 volts at 200 milliamps. ½ watt current. Life: 4000 hour. G3. 14 volts at 80 milliamps. ½ watt current. Life: 1,500 hours. (Recommended for 12 volts. Life at 12 volts: 12,000 hours.) G5. 28 volts at 40 milliamps. ½ watt current. Life: 4,000 hours. (Recommended for 24 volts. Life at 24 volts: 32,000 hours.) Be sure to specify Allied Stock Number and complete Manufacturer's Type Number (including 41EN prefix) when ordering. Av. shpg. wt: 1 oz.

INDICATOR LIGHTS WITH HI-HAT LENS

0. 1	Mfr's	fr's			EACH			
Stock No.	Type 41 EN-	Rating	Color	1- 24	25- 99	100- 249	250- 499	500- Up
844-7000 844-7100 844-7110 844-7200 844-7205 844-7210 844-7215	G1-2111 G3-2111 G3-2113 G5-2111 G5-2112 G5-2113 G5-2114	6 V @ 200 mA 14 V @ 80 mA 14 V @ 80 mA 28 V @ 40 mA 28 V @ 40 mA 28 V @ 40 mA	Red Red Amber Red Green Amber Blue	2.68 2.98 2.98 1.95 1.95 1.95	2.14 2.65 2.65 1.43 1.43 1.43 1.21	1.51 2.00 2.00 .91 .91 .91	1.41 1.68 1.68 .89 .89 .89	1.32 1.47 1.47 .78 .78 .78

INDICATOR LIGHTS WITH FLUSH-MOUNT LENS

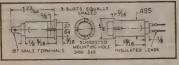
844-7250 G5-2314 28 V @ 40 mA Clear 2.83 2.55 2.00 1.65 1.40	-	844-7235 844-7240 844-7245	G5-2311 G5-2312 G5-2313 G5-2313	14 V @ 80 mA 28 V @ 40 mA	Green Amber Blue White	2.98 2.83 2.83 2.83 2.83 2.83	2.55 2.55 2.55 2.55	2.00 2.00 2.00 2.00 2.00 2.00 2.00	1.65 1.65 1.65 1.65	1.40 1.40 1.40 1.40
--	---	----------------------------------	--	--	---------------------------------	--	------------------------------	--	------------------------------	------------------------------

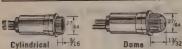
SNAPLITE NEON PILOT LIGHTS

High-brightness neon lamps. Snap Into ½" panel hole, except Series 31, Rectangular: 1.281 x .395" hole. Five lenscap styles—cylindrical, dome-shape, flush, square and rectangular. Built-in resistor, no lamp replacement necessary. Insulated wire leads or 0.187" tab terminals (indicated by "T" in Type No.) ½ watt current.

**NEON LAMPS—CYLINDRICAL, DOME,

Series 32: 110-125 volts. Series 31: 125 or 250 volts. (*) Series 35: 210-250 volts. U.L. Component Program recognized. C.S.A. listed. Average shipping weight 11/2







141	NEON LAMPS—OTEMBRICAL, DOME, TEGOT CAPE							
Lens	Cylindric	al Lens	Dome-Sha	pe Lens	Flush Lens			
Color	Stock No.	Type 32-	Stock No.	Type 32-	Stock No.	Type 32-		
Red	844-5100	2111	844-5150	2211	844-5200	2311		
Amber	844-5110	2113	844-5160	2213	844-5210	2313		
White	844-5120	2115	844-5170	2215	844-5220	2315		
Clear	844-5130	2117						
Red	844-5105	2111T	844-5155	2211T	844-5205	2311T		
Amber	844-5115	2113T	844-5165	2213T	844-5215	2313T		
White	844-5125	2115T	844-5175	2215T	7			
Clear	844-5135	21171	844-5185	2217T				
Red	844-6200	2111*	844-6210	2211°	844-6220	2311°		
Amber	844-6205	2113°	844-6215	2213°				

Lens	Stock No.	Type 31-	Lens	Stock No.	Type 31-
Red	844-5001	-2111T	Amber	844-5015	2113
Red	844-5005	2111	White	844-5030	2115T
Amber	844-5010	,2113T			

1-24, EA.	25-99, EA.	100-249, EA.	250-Up, EA.
2.13	1.70	1.42	1.21

ogram	recognized.	0.0.71. 110		nugo c	mpping	worgint.	. /2
		. (CHROME	BEZE	L		
_	0.41	2 * 1 1	D	04		Fire-b 1	

					844-6045 844-6055	
1-24,	EA.	25-99, EA.	100-	249, EA.	250-U	p, EA.
2 9	12	1 70		1 42	1 1	21

Color Stock No. Type 32- Stock No. Tupe 32- Stock No. Type 32-

SQUARE LENS WITH CHROME BEZEL-110 VOLTS

	Edito		Freads	lab le	Terminais	
	Color	Stock No.	Mfr's Type	Stock No.	Mfr's Type	
11.	Red Amber White Clear	844-6060 844-6070 844-6080 844-6090	32R2911 32R2913 32R2915 32R2917	844-6065 844-6075 844-6085	32R2911T 32R2913T 32R2915T	
-	1-24. FA	25-99	FA 100-	249 FA	250-lin FA	

CARTRIDGE	LAMPS
Local	1 050 .



Black anodized metal sleeves. Clear ends Stainless steel, polished pins. Dia., .290" For housings right . Wt. 1 oz.

PILOT LAMPS (For Housings right) ngth: 1.110" max., less pins.

Stock	Mfr's	Volts	Aver	Average		
No.	Type		Watts	Amps		
937-4010	31	12	2.0	.170		
937-4020	41	24	1.7	.073		
937-4080	51	28	1.1	.040		
937-5050	71	60	3.0	.050		
937-5060	81	120		.025		

INDICATOR LAMPS (For Housings right) Length: 1.912" max., less pins.

Stock No.	Mfr's Type	٧	Av. Watts	Current Amperes MinMax.
937-5905	905	5	.20	.035045
937-5909	909	6	.24	.035045
937-5915	915	10	.40	.035045
937-5918	918	12	.36	.035045
937-5930	930	18	.72	.035045
937-5933	933	24	.42	.015020
937-5934	934	24	.96	.035045
937-5938	938	28	1.12	.035045
937-5941	941	48	1.92	.035045
DD	ICES E	OP	ALL AR	OVE

EACH									
1-9	16- 24	25- 74	75- Up						
1.25	1.13	1.00	.90						

CARTRIDGE LIGHT HOUSINGS

2.13

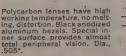


Cartridge housing accept either standard pilot lamps or indicator lamps left. Made of black anodized aluminum per MIL-A-8625; base insulation of molded phenolic. Withstand environmental requirements of MIL-STD-2028 as prescribed in MIL-1-3661A. Rated at 250 volts; maximum current, 1 amp. Breakdown voltage, 1000 V rms at 60 Hz. Easily installed from rear of panel with lockwasher and hex nut. *Solder lugs; other turret lugs. Shpg. wt. 10 oz.

A FOR PILOT LAMPS								
Stock	Mfr's	Size, Dia.						
No.	Type	x L (Inches)						
937-3620	SM-2/300950	½x1%						
937-3625	SM-2A/300960	½x1%						

Size, Dia. Stock 1/2×111/64 1/2×111/64

PR	ICES FOR	ALL ABO	VE
	EA	СН	
1- 9	10- 24	25- 99	100- Up
1.32	.90	.74	.62



	C.	AUIUIN	75	FEMO	-	run	ADO	V I	11003	INC	~
	TRAN	SPARENT	LEN	NS				TRA	NSLUC	ENT	L
ock	No.	Type		Colo	ar .		Stock I	No.	T	ype	

IRAN	SPANER! LE	13		INANGLOCENT LENG				
Stock No.	Туре	Color		Stock No.	Туре	Color		
937-6140 937-6142 937-6143 937-6144 937-6141	301400 301420 301430 301440 301410	Amber Red Blue Green Clear	in a	937-6145 937-6146 937-6147 937-6148 937-6149	301450 301460 301470 301480 301490	Yellow White Red Blue Green		

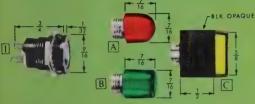
PRICES FOR ALL AT LEFT EACH 50-Up



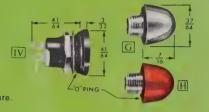
DRAKE a subsidiary of **GENERAL INSTRUMENT CORPORATION**

Indicator Lights

"M.F." OR MIDGET FLANGED









"M.F." COMMERCIAL & MILITARY incandescent and neon T-1%. Front mt. Alum. bik. anodized body. Both lugs insulated. *indicates MIL-L-3661B. Incandescent translucent lenses (A, B, C); neon transparent (D). Lamps not included. For neon use C7A w/27k or C9A w/62k. Specify color: b, c, g, r, w, y.

"M.F." WATER PROOF MILITARY MIL-STD-202 and MIL-L-3661B. Waterproof 15 lb/sq. in.; with Neoprene "O" rings. Transparent (G); translucent (H).

PHOTOS APPROX. 34 ACTUAL SIZE; **HEADLINE PHOTOS** MF ACTUAL SIZE

"TINYLITES"
MIDGET SCREW BASE

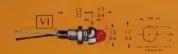




Economical, high quality; front re-placeable lamp included; mounts from front pnf. 3 voltages, U.L. Rec-ognized. Specify Colors: b, c, g, r, w, or y.

SOLID STATE LED'S

SPECIFY LED COLOR. Forward Voltage; V_f for clear & red = 2.1 VDC; green & yellow = 2.6 VDC. Fwd. Curcurent: I_f for clear and red = .015A; green & yellow = .040A.



LED'S ASTROLITE easy to mount, deluxe appearance. $6^{\prime\prime}$ #26 ga. wire leads, "LED" Colors: c, g, r, or y.



SOLID STATE—CARTRIDGE LAMP fits compatible 4426 Series cartridge lampholders or may be connected directly to circuitry. Lens Colors: c, g, r, w, or y. LED Colors: c, g, r or y.



SOLID STATE INDICATOR LIGHTS mnt. from rear pnl. 180 view angle. Choice of dome or cylindrical lens. Lens Colors: c, g, r, w or y. LED Colors: c, g, r, or y.

TABLE TO ORDER ABOVE LIGHTED DEVICES

SELECT INDICATOR BY PHOTO CODE NO. AND TABLE BELOW. COMPLETE STOCK NUMBER FOR LENS AND/OR LED COLOR. Fill in the first X in Stock No. for LED color (where applicable) and the second X for Lens color, using the digits in this

color code: Blue (b)=2; Clear (c)=3; Green (g)=4; Red (r)=5; White (w)=6; Yellow (y)=7. Blue and Green are not available with neon. For Type 616-6010 fill in final X for LED color. Picture captions show colors available in each type.

SPECIFY BOTH LED & LENS COLORS FOR THESE TWO TYPES

Stock	Mfr's	Photo		Desc.		Panel		EACH	
No.	Туре	Code	Volts	t	Centers	Thk.	1-9	10-24	25-Up
616-40XX	31-393	Ł	2.2	LED			2.48	1.98	1.66
616-41XX	31-693	M	2.2	LED			2.48	1.98	1.66
616-42XX	32-393	L	5	LED			2.90	2.32	1.94
616-43XX	32-693	M	5	LED			2.90	2.32	1.94
616-44XX	35-393	L	14	LED			2.90	2.32	1.94
616-45XX	35-693	M	14	LED			2.90	2.32	1.94
616-46XX	37-393	L	28	LED			2.90	2.32	1.94
616-47XX	37-693	M	28	LED			2.90	2.32	1.94
616-501X	5126-022-204	V-K	7	Incand.	19/32	1/4	1.60	1.27	1.07
616-502X	5126-022-604	V-J	7	Incand.	19/32	1/4	1.60	1.27	1.07
616-511X	5127-022-204	V-K	14	Incand.	19/32	1/4	1.60	1.27	1.07
616-512X	5127-022-604	V-J	14	Incand.	19/32	1/4	1.60	1.27	1.07
616-521X	5128-022-204	V-K	28	Incand.	19/32	1/4	2.04	1.63	1.37
616-522X	5128-022-604	V-J	28	Incand.	19/32	1/4	2.04	1.63	1.37
616-531X	5131-036-304	I-A	0-28	Incand.	3/4	17/64	1.71	1.36	1.14
616-532X	5131-036-604	I-B	0-28	Incand.	3/4	17/64	1.71	1.36	1.14
616-535X	*5131-038-304	I-A	0-28	Incand.	3/4	17/64	2.04	1.63	1.37
616-536X	*5131-038-604	I-B	0-28	Incand.	3/4	17/64	2.04	1.63	1.37
616-541X	5133-046-703	H-D	120	Neon(62k)	3/4	1/2	3.16	2.54	2.11
616-543X	°5133-048-703	II-D	120	Neon(62k)	3/4	1/2	3.08	2.46	2.07

Stock	Mfr's	Photo		Desc.		Panel		EACH	
No.	Туре	Code	Volts	†	Centers	Thk.	1-9	10-24	25-Up
616-545X	5133-056-703	II-D	120	Neon(27k)	3/4	1/2	4.60	3.67	3.07
616-547X	*5133-058-703	11-0	120	Neon(27k)	3/4	1/2	3.08	2.46	2.07
616-551X	*5139-038-403	IV-G	0-28	Incand.	3/4	7/32	2.94	2.35	1.19
616-552X	*5139-038-404 5154-036-804	IN-H	0-28	Incand.	3/4	7/32	2.94	2.35	1.19
616-561X		III-F	0-28	Incand.	9/16	1/8	2.01	1.61	1.34
616-562X	5154-036-833	HI-E	0-28	Incand.	3/16	1/8	2.01	1.61	1.34
616-571X	5156-036-909	I-C	0-28	Incand.	3/4	17/64	2.52	2.01	1.68
616-601X	6039-004-304	VI	2.2	LED	11/32	3/16	2.78	2.22	1.86
616-61XX	6200-102-393	VII	2.2	LED	9/16	5/32	3.48	2.78	2.33
616-62XX	6200-102-693	VIII	2.2	LED	9/16	5/32	3.48	2.78	2.33
616-63XX	6200-105-393	VII	2.2	LED	9/16	5/32	5.10	4.08	3.41
616-64XX	6200-105-693	VIII	2.2	LED	9/16	5/32	5.10	4.08	3.41
616-65XX	6201-102-393	VII	5	LED	9/16	5/32	3.55	2.84	2.38
616-66XX	6201-102-693	VIII	5	LED	9/16	5/32	3.55	2.84	2.38
616-67XX	6201-105-393	VII	5	LED	3/16	5/32	5.28	4.22	3.53
616-68XX	6201-105-693	VIII	5	LED	9/16	5/32	5.28	4.22	3.53
616-69XX	6204-102-393	VII	14	LED	9/16	5/32	3.55	2.84	2.38
616-70XX	6204-102-693	VIII	14	LED	3/16	5/32	3.55	2.84	2.38
616-71XX	6206-102-393	VII	28	LED	9/16	5/32	3.55	2.84	2.38
616-72XX	6206-102-693	VIII	28	LED	9/18	5/32	3.55	2.84	2.38

DRAKE a subsidiary of GENERAL INSTRUMENT CORPORATION

"DELUXE MOLDED" INDICATOR LIGHTS



HOW TO ORDER

Select indicator by Photo Code No. and order by Stock No. at bottom of page.

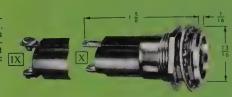
COMPLETE STOCK NUMBER FOR LENS COLOR by filling in X in Stock No. using the digits in this color code: Amber (a)=1; Blue (b)=2; Clear (c)=3; Green (g)=4; Red (r)=5; White (w)=6; Yellow (y)=7. Picture captions show colors available in each type. Blue and green not available with neon.

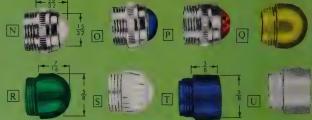


IX - N

PHOTOS % ACTUAL SIZE
TOP 2 DELUXE MOLDED ACTUAL SIZE

"Deluxe Molded" indicator lights assured dependability; fine appearance; Min. Bay. base, incand. and neon lamps T-3½ (not included). Neon units have built-in resistor. Solder or screw lugs; phenolic housing; polished chrome finish. Mount units and install lamps from front panel. Colors: b, c, g, r, w or y.







"FLUSHLITES"

"One of a Kind" with a rectangular nylon housing; built-in neon lamp with 25k resistor. Specify Colors: a, r, or w. Un recognized compensations



"GEMLITES"

Smallest front relampable indicator; houses, longlife, T-1 submidget flanged lamp; lamp not included. Brass body, blk. finish; 2 turret lugs. Meets MIL-L 3661B. Specify Colors: a, b, c, g, r or y.

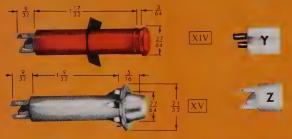


"POSTLITES"

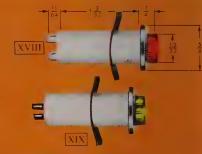
EACH

10-24 25-Up

"GLO-LITES" AND "SLENDER GLO-LITES"







Centers

"GLO-LITES." One-pc. nylon body, lens; built-in, Hi-Brite neon lamp, resistor. Mt. in %'' or 1/2'' hole; front of panel; with Tinnerman nut or



SLENDER "GLO-LITES." Slender, white, nylon, press-fit housing with chrome or plastic bezel mount in $\%_6{''}$ diameter hole; $\%_6{''}$

snap-in chrome plug bottom. Two 22 ga, wire leads or solder and quick connect lugs. Specify Colors: \mathbf{g} , \mathbf{r} , \mathbf{w} or \mathbf{y} .



centers. Lenses transparent. Specify Colors: c, g, r, w or y.

TABLE TO ORDER ABOVE LIGHTED DEVICES

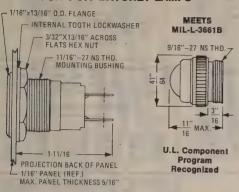
Stock No.	Mfr's Type	Photo Code	Volts	Desc.	Min. Centers	Max. Panel — Thk.	1-9	EACH 10-24	25-Up
616-110X	5160-458-604	XII	0-28	Incand.	15/32	7/32	3.25	2.60	2.15
616-200 X 616-201 X 616-202 X 616-203 X 616-204 X	5201-222-105 5201-222-106 5201-222-110 5201-222-307 5201-222-326	X-N X-0 X-P X-Q X-S	0-120 0-120 0-120 0-120 0-120	Incand. Incand. Incand. Incand. Incand.	31/ ₃₂ 31/ ₃₂ 31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/32 13/32 13/32 13/32 13/32	2.32 2.32 2.32 2.02 2.02	1.84 1.84 1.84 1.61 1.61	1.52 1.52 1.52 1.33 1.33
616-205X 616-210X	5201-222-607 5201-223-105	X-Ŭ IX-N	0-120	Incand.	31/ ₃₂	13/32	2.02	1.61	1.33
616-211X 616-212X 616-213X 616-214X 616-215X	5201-223-106 5201-223-110 5201-223-307 5201-223-326 5201-223-607	IX-0 IX-P IX-Q IX-S IX-U	0-120 0-120 0-120 0-120 0-120	Incand. Incand. Incand. Incand. Incand.	31/ ₃₂ 31/ ₃₂ 31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/32 13/32 13/32 13/32 13/32	2.48 2.48 2.67 2.67 2.67	1.98 1.98 2.13 2.13 2.13	1.64 1.64 1.77 1.77
616-220X 616-221X 616-222X	5201-232-110 5201-232-323 5201-232-603	X-P X-R X-T	120 120 120	Neon(22k) Neon(22k) Neon(22k)	31/ ₃₂ 31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/ ₃₂ 13/ ₃₂ 13/ ₃₂	2.20 2.20 2.20	1.75 1.75 1.75	1.46 1.46 1.46
616-230X 616-231X 616-232X	5201-233-110 5201-233-323 5201-233-603	IX-P IX-R IX-T	120 120 120	Neon(22k) Neon(22k) Neon(22k)	31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/ ₃₂ 13/ ₃₂ 13/ ₃₂	2.40 2.40 2.40	1.91 1.91 1.91	1.57 1.57 1.57
616-240X 616-241X 616-242X	5201-242-110 5201-242-323 5201-242-603	X-P X-R X-T	250 250 250	Neon(100k) Neon(100k) Neon(100k)	31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/32 13/32 13/32	2.20 2.20 2.20	1.75 1.75 1.75	1.40 1.40 1.40
616-250X 616-251X 616-252X	5201-243-110 5201-243-323 5201-243-603	IX-P IX-R IX-T	250 250 250	Neon(100k) Neon(100k) Neon(100k)	31/ ₃₂ 31/ ₃₂ 31/ ₃₂	13/ ₃₂ 13/ ₃₂ 13/ ₃₂	2.40 2.40 2.40	1.91 1.91 1.91	1.57 1.57 1.57
616-260X 616-261X	5201-252-110 5201-252-323	X-P X-R	250 250	Neon(330k) Neon(330k)	31/ ₃₂ 31/ ₃₂	13/32	2.20	1.75	1.46

616-262X	5201-252-603	X-T	250	Neon(330k)	13/32	31/32	2.20	1.75	1.46
616-305X 616-310X 616-311X 616-315X 616-316X	6053-000-023 6063-000-534 6063-000-634 6063-001-534 6063-001-634	XIII XIV-Z XVI-Z XIV-Y XVI-Y	120 120 120 120 120	Neon (33k) Neon (25k) Neon (25k) Neon (25k) Neon (25k)	7/8 17/32 17/32 17/32 17/32	9/16 15/16 11/8 15/16 11/8	1.19 .94 .94 .86	1.00 .75 .75 .68	.94 .63 .63 .57
616-320X 616-321X 616-325X 616-326X	6065-000-534 6065-000-634 6065-001-534 6065-001-634	XIV-Z XVI-Z XIV-Y XVI-Y	250 250 250 250 250	Neon(100k) Neon(100k) Neon(100k) Neon(100k)	17/ ₃₂ 17/ ₃₂ 17/ ₃₂ 17/ ₃₂ 17/ ₃₂	15/16 11/8 15/16 11/8	.94 .94 .86 .86	.75 .75 .68 .68	.63 .63 .57 .57
616-330X 616-331X 616-335X 616-336X	6073-000-534 6073-000-634 6073-001-534 6073-001-634	XVII-Z XV-Z XVII-Y XV-Y	120 120 120 120	Neon(25k) Neon(25k) Neon(25k) Neon(25k)	11/16 11/16 11/16 11/16	5/64 5/64 5/64 5/64	1.02 1.02 .97 .97	.81 .81 .77 .77	.68 .68 .65 .65
616-340X 616-341X 616-345X 616-346X	6075-000-534 6075-000-634 6075-001-534 6075-001-634	XVII-Z XV-Z XVII-Y XV-Y	250 250 250 250 250	Neon(100k) Neon(100k) Neon(100k) Neon(100k)	11/16 11/16 11/16 11/18 11/18	5/64 5/64 5/64 5/64	1.02 1.02 .97 .97	.81 .81 .77 .77	.68 .68 .65 .65
616-355 X	6103-000-924	XI	120	Neon(25k)	11/2	11/32	.94	.75	.63
616-361X 616-365X 616-371X	6243-000-596 6243-001-596 6245-001-596	XVIII XIX XIX	120 120 250	Neon(22k) Neon(22k) Neon(100k)		3/4 3/4 3/4	1.00 .95 .95	.80 .76 .76	.67 .64 .64
616-381X 616-385X 616-391X 616-395X	6483-001-583 6483-401-603 6493-001-583 6493-401-603	XX XXI XXII XXIII	120 120 120 120 120	Neon(33k) Neon(33k) Neon(33k) Neon(33k)	7/18 7/16 7/16 7/16 7/16		.90 .90 .80	.72 .72 .64 .64	.61 .61 .54 .54

tFor Neon types, value of built-in resistor indicated.

Indicator Lights and Accessories

11/16" MOUNTING CLEARANCE LIGHTS FOR T-31/4 BAYONET LAMPS



INCANDESCENT ASSEMBLIES

	Stock	Mfr's	Type	Lens	E.	/CH
	No.	Type 81-	X5201-222-	Color	1-9	10-Up
ı	770-0420	0410-0111-201	105R-I/L-B/A	Red	3.14	2.51
	770-0421	0410-0112-201	105G-B/A	Green	3.14	2.51
	770-0422	0410-0113-201	105A-B/A	Amber	3.14	2.51
	770-0419	0410-0117-201	105C-B/A	Clear	3.14	2.51
	770-0423	0410-0135-201	106W-B/A	White	3.14	2.51

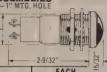
LOW-VOLTAGE ENCLOSED SIGNAL ASSEMBLIES

Stock	Mfr's	Type	Lens	EA	CH
No.	Туре	5100-822-	Color	1-9	10-Up
770-0438	81-9110-0111-102		Red	2.40	1.92
770-0439	81-9110-0112-102		Green	2.40	1.92
770-0440	81-9110-0113-102		Amber	2.40	1.92
770-0441	81-9110-0114-102	105B-I/L	Blue	2.40	1.92

LOW-VOLTAGE SIGNAL ASSEMBLIES

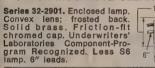
1-INCH MOUNTING CLEARANCE LIGHTS NON-OIL-TIGHT ASSEMBLIES

Series 32-3101. For 115 volts. Black phenolic and brass construction. Faceted lens, Candelabra base. Less S6 lamp. Underwriters' Laboratories Component-Program Recognized.



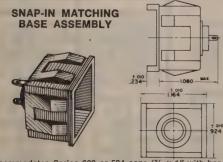
Stock	Wfr's		EACH =	
No.	Туре	Color	1-9	10-Up
770-0256 770-0257 770-0258 770-0259 770-0260 770-0261	32-3101-0431-302 32-3101-0432-302 32-3101-0433-302 32-3101-0434-302 32-3101-9435-302 32-3101-0437-302	Red Green Amber Blue White Clear	3.04 3.04 3.04 3.70 3.70 3.70	2.43 2.43 2.43 2.96 2.96 2.96

1-INCH MOUNTING CLEARANCE LIGHTS





770-0250	32-2901-0111-302	Red	5.85	5.26
770-0251	32-2901-0112-302	Green	5.85	5.26
770-0252	32-2901-0113-302	Amber	5.85	5.26
770-0254	32-2901-0135-302	White	5.85	5.26



Accommodates Series 303 or 534 caps (% x 1" with barrier). Snap-in mount in .870 x 1.110" hole; %6" max. panel thickness. Black bezel. Hot-tinned brass terminals.

1/2" AND 3/4" LENS CAPS



3/4" Round Lens Cap-Nos. 188-and-191-



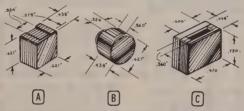
motatable and non-rotatable caps for use with panel mounting switches and matching indicators. High strength plastic with brass shank.

1/2" ROUND LENS CAP (ROTATABLE)

Stock	Mfr's		EAC	H
No.	Туре	Color	1-9	10-Up
770-1030	183-1471	Red	1.40	1.12
770-1031	183-1472	Green	1.40	1.12
770-1032	183-1473	Amber	1.40	1.12

JARE LENS	CAP (NON-F	ROTATABL	E)
184-1871	Red	1.40	1.12
ARE LENS C	APS (NON-	ROTATABL	.E)
187-1871 187-1872	Red	2.00	1.60
	184-1871 ARE LENS C 187-1871	184-1871 Red ARE LENS CAPS (NON-I 187-1871 Red	ARE LENS CAPS (NON-ROTATABL

770-1114 187-1875 White 2.00 1.60 PUSHBUTTON LENS CAPS



Plastic with brass shank; white nickel plated. Light source is T-1 ¾ bulb with midget flanged base; 5-28 VAC. Type 300 (Fig. A) is %" square pushbutton cap; Type 301 (Fig. B) is %" round cap; Type 305 (Fig. C) is ¾ x 1" rectangular cap. For snap-in indicators.

Stock	Mfr's			EA	CH
No.	Type	Fig.	Color	1-9	10-Up
770-1310 700-1311 770-1313 770-1315	300-1871 300-1872 300-1874 300-1876	A A A	Red Green Blue Yellow	2.00 2.00 2.00 2.00	1.60 1.60 1.60 1.60
770-1320 770-1321 770-1324	301-1471 301-1472 301-1475	B B	Red Green White	2.00 2.00 2.00	1.60 1.60 1.60
770-1330 770-1331 770-1332 770-1333 770-1334	303-3471 303-3472 303-3473 303-3474 303-3475	00000	Red Green Amber Blue White	2.20 2.20 2.20 2.20 2.20 2.20	1.76 1.76 1.76 1.76 1.76

WRENCHES AND PILOT BULB REMOVERS

506-0375 (651-15) Wrench. For installation of series 913 . For 64 D.P. ST. Knurl, Class III. 770-1472 Each 7.56

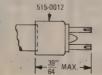
506-0500 Wrench. Mounting wrench for series 928 indicator lights and series 513 switches. Each 7.56

506-0045 Remover. For convenient installation and removal of T-31/4 and S6 lamps. Made of high-grade rubber for solid grip. 770-1470

506-0073 Remover. Has two hollow ends that engage lamps tightly. One end for T-3 $^{\prime}4$ bulbs, the other for T-4 $^{\prime}2$ bulbs. High-grade rubber.

ROUND CARTRIDGE CONNECTOR

Series 515-0012. Has durable molded phenolic insulation. Precision-made to accept appropriate cartridges. Solder cup ter-770-1830. 1-9 Ea. 10-24 . Ea. 1.12 25-Up . Ea.



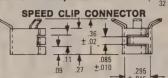
RECTANGULAR CONNECTOR

Series 515-0050 (300-058). Rugged molded phenolic construction with cadmium-plated copper solder lug terminals. Perfect match for appropriate lamp cartridges.

6 25-Up. Ea. .30 770-1837. 1-9 . 10-24 . Ea. .36



LIGHTED DEVICES



INDICATOR LIGHT AND FLASHER



Series 539 is a flashing Indicator (130 flashes per minute); Series 538 is matching indicator. Uses C2A (NE-2H) neon lamp. Snap-in mounting in .775" hole, in panels to \(\frac{4}{6}\)" thick. Low profile cap with bezel. For 110-125 VAC. Solderable terminals. Built-in resistor.

Sto	ck Mfr's		Lens	EA	CH
No		Type	Color	1-9	10-Up
770-2	2006	539-1544-1891-001	Red	8.14	6.51
770-2		539-1544-1895-001	White	8.14	6.51
770-2	2000	538-0066-1891-031	Red	4.57	3.65

SERIES 513 SWITCH BASES

Low-profile snap-in mounting. Momentary action. Takes T-1 ¾ lamp with midget flanged base; 6-28 V. Rated 3A res. at 125 VAC/30 VDC. Suffix -001 types include bezel, clip, spanner ring. Suffix -604 types use friction-fit cap; mount in ½" dia. hole.

Stock	Type	Con-	Bezel Uses	EAG	CH
No.	513-	tacts	Cap In.	1-4	5-Up
770-1735	0306-001	2-circ.	% sq.	9.72	7.78
770-1736	0307-001	2-circ.	% rnd.	9.72	7.78
770-1739	0310-001	2-circ.	%x1	9.72	7.78
770-1726	0107-001	SPST-NO	% rnd.	8.97	7.18
770-1725	0106-001	SPST-NO	% sq.	8.97	7.18
770-1733	0201-604	SPST-NC		7.45	5.96
770-1738	0301-604	2-circ.		8.22	6.58
770-1740	0601-604	2-circ. dry		10.64	8.51
770-1744	1401-604	SPDT		12.20	9.76
770-1728	0101-604	SPST-NO		7.45	5.96

SERIES 922 AND 913 ILLUMINATED SWITCHES

SPST-NO; momentary contact. Rated 0.1A at 125 VAC or 30 VDC. Mounts from rear in \(^{4}\)\text{P} hole. Solder term. Type 922 uses T-1 \(^{4}\) Imp (not included); Type 913 uses C2A (NE-2H) neon lamp (included), and 33K resistor.

Stock	Mfr's		EACH	
No.	Type	Color	1-4	5-Up
770-2353 770-2340	922-1141-1632-523 913-1156-1632-525	Green Red	6.10	4.88 5.53

PRESS-TO-TEST INDICATOR LIGHTS

Series 803 and 804. Mount from rear in %" hole; %" max. panel thickness. Takes T-3¼ min. bayonet lamp; 2-55 V. Flat lens; solder terminals. 803 has non-dimmer cap; 804 has semi-blackout mechanical shutter.

Stock	Mfr's		EA	EACH	
No.	Туре	Color	1-9	10-Up	
770-2165 770-2166 770-2175 770-2176	803-1710-0331-504 803-1710-0332-504 804-1710-0331-504 804-1710-0332-504	Red Green Red Green	4.60 4.60 6.45 6.45	3.68 3.68 5.16 5.16	

Series 800 and 801. Mount in $\frac{1}{2}$ hole; $\frac{9}{16}$ max. thickness. Takes T-1 $\frac{9}{16}$ midget flange base lamp; 1.35-28 V. Flat lens; solder terminals. 800 is non-dimming; 801 has mechanical shutter (semi-blackout).

770-2125 770-2126	800-1030-0331-504 800-1030-0332-504	Red Green	4.55	3.64
770-2127	800-1030-0333-504	Yellow	4.55	3.64
770-2136 770-2137	801-1030-0332-504 801-1030-0333-504	Green Yellow	5.47 5.47	4.38

LIGHTED NUMERIC READOUT MODULES

Highly legible displays of ½" characters. Bold angular digits. Accepts T-1 ¾ bulbs with midget flanged base.

Stock		Mfr's	Descrip-	Mod-	EAC	H
	No.	Type	tion	ules	1-4	5-Up
	770-2019 770-2020	710-0300-005 710-0301-005	Basic Module With Decimal		10.02 11.56	
	770-2025 770-2026	712-0103-001 712-0103-002	Window Window	-1	1.13 1.87	.90
	770-2050 770-2051 770-2052	713-0100-001 713-0100-002 713-0100-003	Mtg. bracket Mtg. bracket Mtg. bracket	2 3	7.30 9.25 10.40	

EXTENDED-SERVICE

PILOT LAMPS



T2 type bulbs. 1.075" long x 1/4" dia. Slide or miniature bayonet bases. 5000-hr. minimum life. Flat-top bulb. Flare-stem design. See below for housings. 2 oz. **Sold in boxes of 10.**

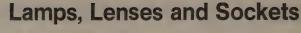
Slide E	Base	Bayonet	Base	Volts Av. A		Av.	End		
Stock No.	Туре	Stock No.	Туре		Watts	Amps	Foot- Candles		
937-3735 937-3820 937-3970 937-3995	6PSB 12PSB 24PSB 28PSB	937-3990	28MB	6 12 24 28	.8 2.0 1.7 1.1	.140 .170 .073 .040	800 2400 2200 1900		
937-4060 937-5000 937-5080	48PSB 60PSB 120PSB	937-5070	120MB	48 60 120	2.5 3.0 3.0	.053 .050 025	1500 2400 1600		
1-3 Boxes.									



END COLOR CAPS

Profax and pyrex hard glass types. Profax for use below $1\frac{1}{2}$ watts. For housings, this page. Shpg. wt., 1 lb.

			BOX 0				
Stock No.	Mfr's Type	Desc.	Color	1-	10- 49	50- 99	100- Up
937-7801 937-7802 937-7803 937-7804 937-7805	38001-0 38002-0 38003-0 38004-0 38005-0	Profax Profax Profax Profax Profax	Red Yel Wht Grn Blue	1.22 1.22 1.22 1.22 1.22	1.10 1.10 1.10 1.10 1.10	.98 .98 .98 .98	.89 .89 .89 .89
937-7871 937-7872 937-7873 937-7874	38071-0 38072-0 38073-0 38074-0	Pyrex Pyrex Pyrex Pyrex	Red Yel Wht Grn	1.22 1.22 1.22 1.22	1.10 1.10 1.10 1.10	.98 .98 .98	.89 .89 .89



PHENOLIC UNIVERSAL HOUSING



All metal parts nickel-plated. Rated 75 watts, 125

ASSEMBLED HOUSING AND LAMPS (Less lens)

Stock No.	Type	Volts	Watts	Av. Amps	Candles
937-3825 937-3975 937-4000	12PSB/30099-0 24PSB/30099-0 28PSB/30099-0	12 24 28	2.0 1.7 1.1	.170 .073 .040	2400 2200 1900
937-5090	120PSB/30099-0	120	3.0	.025	1600
1-25	Each 1.92	26-99			Each 1.74
100-499	Each 1.55	500-L	Jp		Each 1.39

LENSES FOR PILOT LIGHT ASSEMBLIES

For housings on this page. Sold in Pkg. of 10. 1-5 Pkg. Each 5.37 6-9 Pkg. Each 4.79

	JEWELED	LENS	CLEAR	LENS	OPAQUE	LENS
Color	Stock No.	Type	Stock No.	Type	Stock No.	Type
Red	937-6100	30100-0	937-6110	30110-0	937-6130	30130-0
Blue	937-6103	30103-0	937-6113	30113-0		
Green	937-6102	30102-0	937-6112	30112-0	937-6132	30132-0
Amber	937-6106	30106-0	937-6111	30111-0		ara a e/a e s
Yellow					937-6131	30131-0
Clear			937-6116	30116-0		
White					937-6133	30133-1



INDICATOR LAMPS AND SOCKETS

Long life, minimum 5000 hours. Electrical contact made with AMP connector 42197-2 or by soldering leads through holes in contacts. T2 bulb. In Mfr's Type, final letter "B" Indicates slide base; others are lead type.

Volts	Current	End Foot-	Stock	Mfr's	BOX OF 10		Stock Mfr's		BOX OF 10					
***************************************	(mA)	Candles	No.	Type	1-4	5-9	10-24	25-Up	No.	Туре	1-4	5-9	18-24	25-Up
4.0	35-45	200	937-3710	4ESB	7.33	6.59	5.86	5.25						
5.0	35-45	225	937-3715	5ESB	7.33	6.59	5.86	5.25						
6.0	35-45	250	937-3725	6ESB	7.33	6.59	5.86	5.25	937-3720	6ES	5.60	5.05	4.49	4.00
10.0	35-45	450	937-3775	10ESB	6.84	6.16	5.45	4.93	027 2700	1000	5.60	5.05	4.49	4.00
10.0 12.0	15-20	100 650	937-3765	10CSE	7.33	6.59	5.86 5.86	5.25 5.25	937-3760	10CS				
	35-45		937-3810	12ESB			-							
16.0	35-45	900	937-3910	16ESB	7.33	6.59	5.86	5.25						
18.0	35-45	1000	937-3915	18ESB	7.33	6.59	5.86	5.25						
24.0	35-45	1100	937-3960	24ESB	7.33	6.59	5.86	5.25						
24.0	15-20	200	937-3945	24CSB	7.33	6.59	5.86	5.25	937-3940	24CS	5.60	5.05	4.49	4.00
28.0	35-45	1285	937-3985	28ESB	7.33	6.59	5.86	5.25						
48.0	35-45	2000	937-4040	48ESB	9.78	8.80	7.83	7.05						

INDICATOR SOCKETS

(Single-Socket Type)



937-6150. Type 30150-0. Round style. Body: 5\%4x1/2" dia. Flange: %" dia. Sold in Pkg. of 10. 1 lb. 1-4.....Ea. 3.42 5-9.....Ea. 3.08 10-Up..... Ea. 2.75 937-6151. Type 30151-0. Rectangular style. Same body size as above. Flange: ½x¾". Sold in Pkg. of 10. 1 lb. 1-4....Ea. 3.42 5-9....Ea. 3.08 10-Up....Ea. 2.75

PANEL LIGHT SOCKETS



937-6152. 1-25 Ea. .50 50-99 Ea. .40

Type 30154-0, Single Socket.	
937-6154. 1-25Ea50	26-49 Ea45
50-99Ea40	100-Up Ea38

33250-0

STRIP SOCKETS (12 Sockets per Strip)

Overall depth, %4" (less pins). Sockets are 4%"x½" dia. 3 oz. 937-7250. 31250-0. ½" center, alternate contacts. 1-5
937-7350. 33250-0. ½" ctr., Individual contacts. 1-5
937-7375. 33275-0. ¾" ctr., Individual contacts. 1-5 Each 5.12 6-9 Each 4.60 10-24 Each 4.10 25-Up Each 3.75

LENSES FOR ABOVE SOCKETS



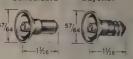
Polycarbonate lenses for Type 30152 panel lamp socket above. Available in round and square types. Shpg. wt. 2 oz. Sold in Boxes of 10.

	ROUND	LENS	SQUARE	LENS					
Color	Stock No.	Type	Stock No.	Туре					
Red	937-6160	30160-0	937-6170	30170-0					
Clear	937-6161	30161-0	111111111111111111111111111111111111111	227271					
Amber	937-6162	30162-0	937-6172	30172-0					
White Green	937-6163 937-6164	30163-0 30164-0	937-6173 937-6174	30173-0 30174-0					
Blue	937-6165	30165-0	937-6175	30175-0					
1-5 Boxes.	1-5 BoxesEach 2.98 6-9 BoxesEach 2.68								
10-24 Boxe	e · Faci	h 2 40	25-Un Boxes	Fach 2 15					

ANNUNCIATOR LAMPS

Candelabra

Bayonet



High-brightness, long life lamps. Feature environmental reliability and 5000-hour life rating. Self-contained reflector speeds assembly. Miniature bayonet base or candelabra base. Shpg. wt. 2 oz.

MINIATURE BAYONET

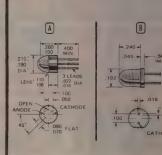
Stock No.	Mfr's Type	٧	w	A
\$37-3830	12RB 35221-0	12	2.0	.170
937-5020 937-5200	60RB 35227-0 120RB 35229-0	120	3.0	.050

CANDELABRA

937-5210 | 120RC 35128-0 | 120 | 3.0 | .025

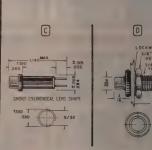
1-9.....Each 1.25 10-24.....Each 1.10 25-49 Ea. .98 50-99 Ea. .90 100-Up Ea. .87

SOLID STATE DIODE LITES™



Light emitting lamps consist of gallium arsenide phosphide diode encapsulated in high grade plastic. Brightness, 1 mcd@ 20mA. IC compatible. Wide viewing angle. Fwd. DC Curr: 50 mA. Rev. V: 3V. Dis.: 100 mW (derate 1.3 mW)°C above 25°C. Ambient range: —40° to +100°C.

				EAG		CH		
Stock No.	Mfr's Type		Color	1- 5	6-	10- 24	25- Up	
770-1927 770-1925 770-1926	521-9165	B	Red 1 Red 1 Clear1	.85	1.69	1.50	1.25	



C DATALAMP CARTRIDGES

Diode-lite lamps with short cylindrical Fresnel lens in aluminum sleeve. Stainless steel pins, nylon insulation. 20 milliamperes maximum. Voltage tolerance, 5%. Operating temperature, -55° to +60°C. For use with 508-8738 or 508-7538 holders and speed clips. Fig. D type is in permanent holder.

Stock	Mfr's	111	Color	EACH				
No.	Type	DC Cold		1-9	10- 24	25- 99	50- Up	
770-2751	4760- 3331-500	14	Red	3.75	3.00	2.50	2.29	
770-2753	4760- 3333-500	14	Amber	3.75	3.00	2.50	2.29	

CARTRIDGE IN HOLDER

770-2431 7868-3331-504 5 Red 4.75 3.80 3.40 3.15

Lamp Sockets for Every Application













LIGHTED DEVICES

































SERIES 200 MINIATURE BAYONET

Sockets with insulated sleeves. 032" steel brackets; zinc-plated. Built-in 6" long #22 (7x30) leads. U.L. rated at 80°C., PVC insulated. Use T-3¼, G-3½ or G-4½ bulb. Shpg. wt., 1 oz.

Stock Mfr's			EACH		
No.	Type	Fig.	1- 24	25- 99	100- Up
844-1400 844-1401 844-1402 844-1403 844-1404	2-01 2-04 2-06 2-13 2-15	12345	.76 .76 .76 1.15 1.15	.61 .61 .61 .92	.52 .52 .52 .77 .77

SERIES 300 MINIATURE BAYONET

Bakeilte. Wire leads, 3-30N with nut. U.L., C.S.A. Listed. For T-31/4, G-31/2, G-41/2, NE-51 lamps. Av. wt., 1 oz.

844-2100	3-01	6	1.25	1.02	.86
844-2101	3-02	7	1.25	1.02	.86
844-2102	3-05	8	1.25	1.02	.86
844-2103	3-06	9.	1.25	1.02	.86
844-2105	3-30N	10	.84	.66	.54

SERIES 400 CANDELABRA SCREW

Candelabra screw sockets in molded bakelite. #18 black and white wire leads 6'' long with ends stripped 1/6''. Type 4-40 snaps into 1/6'' hole. Type 4-30N with nut. For both incandescent and neon-glow lamps. Use NE-45, S6 or 10C7 lamps. Av shpg. wt., 1 oz.

844-2302	4-06	11	.85	.58	.46
844-2303	4-08	12	.85	.58	.46
844-2304	4-40	14	.85	.58	.46
844-2305	4-30N	13	1.09	.83	.66

SERIES 11-200 CANDELABRA BAYONET

Single-contact socket. Has one 6" #18 Single-contact socket. Has one of #10 (16x30) lead, with y_{32} " wall of PVC insulation. U.L. and C.S.A, rated at 80°C. Has .035 to .042" thick steel brackets, cadmium-plated to fight corrosion. For T-4½ bulb. Shpg. wt., 1 oz.

844-3300 11-271	15	1.28	.58	.46
844-3301 11-272	16		1.02	.85

SERIES 12-200 CANDELABRA BAYONET

Double-contact with wire leads. Contacts in insulating bakelite disc, separated by small coils. Disc, spring-loaded. #18-gauge (16x30) leads rated at 80°C. Rated 75 watts, 125 volts. Type 12-240 snaps into 11/16" hole. For incandescent and neon glow lamps as G6, S6, 10C7 and NE-48. U.L., C.S.A. 1 oz.

844-3612	12-275	18	.99	.68	.61
844-3630	12-230BN	1.7	.99	.68	.61
844-3640	12-240	19	.99	.68	.61
844-3671	12-271	20	.99	.68	.61
844-3672	12-272	21	.99	.68	.61

SERIES 1400 INTERMEDIATE SCREW

Wire leads. For incandescent and ozone as S-6, S-11. U.L., C.S.A. Listed. 1 oz.

844-3700 844-3701	14-71 1 14-72	22 23	.86 .86	.63 .63	.52
----------------------	------------------	-------	------------	------------	-----

SERIES 1600 MIDGET SCREWS

Solder terminals, tinned for easy connections. For P-21/2, T-13/4 lamps. 1 oz. 844-3900 16-08 24 .85 .58 .46

SERIES 500 MINIATURE SCREW

Solder terminals tinned. For low-voltage incandescent lamp applications. Zincplated steel brackets resist corrosion. For T-3¼, TL-3, or G-3½ lamps. *Long verti-cal bracket. Av. wt., 1 oz.

Stock	Mise's	Mfr's		EACH		
No.	No. Type		1- 24	25- 99	100- Up	
844-2401 844-2406 844-2407 844-2408 844-2413	5-01 5-06 5-07 5-08 5-13	25 26 27 28	.69 .69 .69 .69	.46 .46 .46 .46	.33 .33 .33 .33	

SERIES 600 CANDELABRA SCREW

With tinned solder terminals. Have .025 to .032" steel brackets; zinc-plated to fight corrosion. For G6 or S6 lamps. Shpg. wt.

844-2500	6-01	-	1.10	.88	.62
844-2503	6-06	30	.72	.50	.35
844-2506	6-11	31	.72	.50	.31
844-2507	6-13	32	.72	.50	.31

SERIES 700 MINIATURE BAYONET

Insulated brackets. Terminals tinned for easy soldering. For low-voltage incandescent lamps as T-3 $\frac{1}{4}$, G-3 $\frac{1}{2}$, and G-4 $\frac{1}{2}$. Shpg. wt., 1 oz.

844-3103	7-05	33	.72	.43	.31
844-3104	7-06	34	.72	.43	.31
844-3106	7-08	35	.72	.43	.31
844-3107	7-11	36	.72	.43	.31
844-3108	7-13	37	.90	.66	.49
844-3110	7-20	38	.90	.66	.49
844-3111	7-35	39-	.90	.66	.49

SERIES 1800 CANDELABRA SCREW

For incandescent and neon-glow, as S6 and NE-45. 75 watts, 125 volts. Insulating sleeve to meet U.L., C.S.A. requirements. Wt., 1 oz.

844-4100	18-76	40	.87	.56	.43

SERIES 25-00 MIDGET GROOVED

For midget-grooved base incandescent lamps, TL-1¾ and T-1¾ lens-end amps. 2 terminals. Built-in ejection. 1 oz.

844-4408	43		1,, 0	
844-4412 844-4406	41	1.03 1.03	.75 .75	.66 .66

SERIES 25-200 MIDGET GROOVED

Same as Series 25-00 above, but has two insulated wire leads. For TL-1¾ and T-1¾ lamps. Shpg. wt., 1 oz.

844-4500	44	.78	.63	.53
844-4501	45	1.42	1.28	.95

SERIES 25-200-1 MIDGET-GROOVED

Subminiature socket. Same as Series 25-00 but grounded with single wire lead. Type 25-230N-1 with nut. For TL-1¾ and T-1¾

044 4700	OF DOOM 1	4.0		4 4 6	
844-4/00	25-230N-1	40	1.//	1.18	1.08





















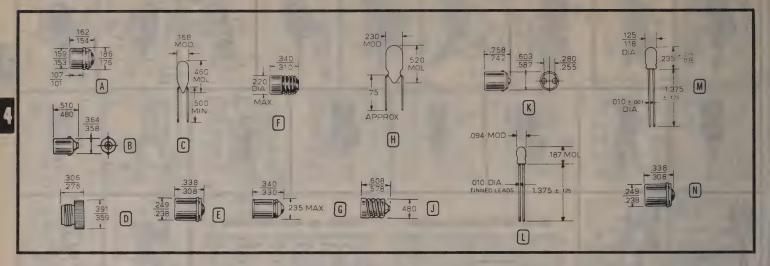








Allied Miniature and Subminiature Lamps



SUBMINIATURE AND MIL SPEC LAMPS

- Wide Assortment of Popular Styles
- All Types ¼ " Diameter and Smaller— Operate on 30 Volts or Less

The lamps listed below are the most popular types available. Quality incandescent lamps 1/4" in diameter or less; voltage limited to 30 volts or less. Many styles to choose from for such diverse applications as aircraft, appliances, automotive, radio or TV applications. Allied carries lamps for all needs—if the type you require is not listed, contact your nearest Allied facility. All lamps listed are sold in packages of ten only. *Indicates Base Configuration.

Stock	Mfr's					Pkg.	of 10
No.	Туре	*	Voits	Amps	Base	9	10- Up
749-9185 749-9225 749-9230	334	DG	3.0 28.0	.19	Per Mil. 25236-323 Midget Grooved	10.08 10.05	9.25 9.05
749-9235	LSV	G	28.0 28.0	.06	Midget Grooved Per Mil. 15612-2	12.25 10.30	11.18 9.45
749-9240 749-9280 749-9295 749-9300 749-9320	367 378 379	GEFGE	14.0 10.0 6.3 6.3 28.0	.08 .04 .20 .20 .20	Midget Grooved Midget Flanged Midget Screw Midget Grooved Midget Flanged	10.25 14.66 12.64 12.55 14.63	9.40 13.20 11.59 11.30 13.40
749-9331 749-9332 749-9405	398 399 682	G F A	6.3 28.0 5.0	.20 .04 .06	Midget Grooved Midget Screw Sub-Midget Flanged	11.33 14.10 14.85	10.22 12.70 13.61
749-9431 749-9545	718 1705	A	5.0 14.0	.115	Sub-Midget Flanged Wire Terminal	14.85 7.05	13.60 6.35
749-9560 749-9725 749-9745 749-9746	6838	H	28.0 28.0 28.0 28.0	.04 .04 .024 .024	Wire Terminal Wire Terminal Wire Terminal Sub-Midget Flanged	5.75 10.03 18.07 22.05	5.18 9.03 15.65 20.20
749-9827 749-3068		C B	28.0 120	.04	Per Mil. 28135-1 Min. Bayonet	12.59 11.65	11.34

STANDARD VOLTAGE LAMPS

*Base configuration.

Stock	Mfr's	*	Volts	Watts	Bulb	PKO	G. OF	10
No.	Type		VOIES	watts	Style	1- 9	10- 24	25- Up
	6S6(115) 6S6(145) 6S6/DC	1 1 K J	120 115 145 120 115-125	3 6 6 6	S-6 S-6 S-6 S-6 T-41/2	8.15 3.30 8.14 5.73 10.80	7.34 2.97 6.66 5.16 9.70	6.55 2.65 5.95 4.60 8.65
749-8730 749-8735 749-8738 749-8740 749-8745	10C7 10C7DC 10S6C	JKJ	115-125 115-125 115-125 230 250	10	C-7 C-7 C-7 S-6 S-6	3.10 4.63 5.73 9.03 9.03	2.80 4.16 5.15 8.15 8.15	2.50 3.70 4.60 7.25 7.25

LONG LIFE LAMPS

M.F., midget flanged. W.T., wire terminal. *Base configuration. Sold in Pkgs. of 10.

0					PK	G. OF	10		
Stock No.	Mfr's Type	*	٧.	A.	Base	Bulb	1-	5-	10- Up
749-9205 749-9425 749-9750	327LSV 713 7153	N M		.075	W.T.	T-13/4 T-1 T-3/4	12.27	11.25	11.70 10.44



HIGH-OUTPUT LENS-END LAMPS

GTL SERIES. Miniature lamps have focused beam, ideal for activating photoconductors in card or tape operations. 0.35 amp at 2.5 V, AC-DC. Midget grooved base. Overall diameter is .250". 11/16" long. Av. shpg. wt. 3 oz.

Stock	Mfr's	Style	PER BULB					
No. Type		Otylo	1-9	10-24	25-Up			
749-9155 749-9160 749-9165	253 253X 261	GTL-1¾ GTL-1¾ GTL-1¾	3.15 3.83 6.18	2.85 3.45 5.56	2.55 3.10 4.95			

MINIATURE NEON-GLOW INDICATOR LAMPS

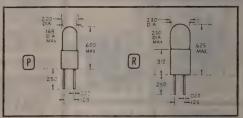
For 105-600 V, except \$210-600 V. Screw types have series resistor for 105-125 V. In Base column: D.C. means double contact; S.C., single; Mid., midget; Bay., bayonet; Cand., candelabra. *AC start V, DC V 40% higher. †High brightness. 2 oz.

Stock No.	Mfr's Type	Watts		Bulb Style	Base	PKG. 10
749-2160		1/17 1/17 1/17 1/15 1/10	95 65 65	T-2 T-2 T-2 T-2 T-2	Wire Term. Wire Term. Wire Term. S.C. Mid. Fige Wire Term.	1.90 1.92 1.55 11.90 1.76
749-2165	†C2A (NE-2H) †C9A (NE-2J) L5A (NE-23)	1/5 1/5 1	105	T-2 T-2 G-10	Wire Term. S.C. Mid. Flge D.C. Bay. Cand.	1.76 11.88 12.55
749-2150 749-2120	B7A (NE-45) B9A (NE-48) B1A (NE-51) †B2A (NE-51H)	1/4 1/4 1/25 1/7	65	R-5½ T-4½ T-3¼ T-3¼	Cand. Screw D.C. Bay. Cand. S.C. Bay. Min. S.C. Bay. Min.	13.55 11.05 3.92 3.92
	‡F4A (NE-58) K1A (NE-84)	1/2 1/4		T-41/2 T-2	Cand. Screw Spec. Tel. Slide	14.60 9.70

NEON CIRCUIT CONTROL LAMPS

T-2 style bulbs; have wire leads. Radioactive additive reduces breakdown voltage in darkness. Tinned 1" leads for easy soldering. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	DC Start Voltage	Design Current DC mA	PKG. OF 10
749-8705		60-90	.3	1.91
749-8707 749-8710		68-76	10.0	10.25
749-8713	5AJ (NE-86)	55-90	1.5	3.52
749-8704	4AC (NE-97)	110-140	.5	3.57



SUBMINIATURE INCANDESCENT BI-PIN LAMPS

Widely used for indicator lighting and other design applications. Have .20" diameter terminals. T-1½ bulb, .200" diameter x .600" maximum; T-1½ bulb, .230" diameter x .625" maximum. Terminals: T-1½ and T-1½, .250", ‡Indicates +10%, -20%. Sold in Packages of 10 Only.

Charle	Туре	Fig	V	Amps	M C	Bulb	PK	PKG. OF 10			
	CM7-		ľ		C.P. Size		1-4	5-9 1	0-Up		
749-2829	7646	Р	14.0	.08		T-11/4	13.97	12.80	11.88		
749-2826	7632	P	28.0	.04		T-11/4	13.97	12.80	11.88		
749-2814	7377	R	6.3	.075		T-13/4	9.00	8.13	7.25		
749-2816	7381	R	6.3	.20	.40	T-13/4	10.00	9.00	8.00		
749-2794	7349	R	6.3	.20	.55	T-13/4	9.03	8.13	7.25		
749-2817	7832	R	14.0	.08	.30	T-13/4	10.65	9.59	8.50		
749-2808	7370	R	18.0	.041		T-13/4	14.98	13.48	11.98		
749-2818	7387	R	28.0	.04	.30	T-13/4	10.45	9.40	8.35		
749-2790	7327	R	28.0	.04	.34	T-13/4	9.03	8.13	7.25		

CM20 SERIES SUBMINIATURE LENS END-LITE



 For Card Reader and Other Applications

- Nylon Insulation per MIL-W-16878
- Semi-resilient Encapsulation

CM-20 (right angle lens) mounted to Bi-Pin cartridges. Clear anodized aluminum; stainless steel terminals; nylon insulation. CM20-3 through CM20-7 in gold anodized aluminum #24 AWG stranded wire leads. Type B insulation per MIL-W-16878. Semi-resilient thermosetting resin encapsulation. CM20-6 and CM20-7 mount on .250" centers for card reader uses.

SPOT SPECIFICATIONS: *Spot covers 1/8" diameter target when projected 3/8" from end of bulb at minimum intensity of 750 foot-candles; †When projected 1" from end of bulb, spot covers 1" dia. at 350 foot-candles. \$\frac{8}{2}\sigma' from bulb, spot covers 1/16" diameter at 750 foot-candles, is narrowly elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\frac{1}{2}\sigma\text{mme} as CM-20-3, spot covers 1/8" diameter target, is round elliptical; \$\f

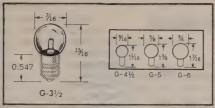
Stock	Mfr's	Volts	Amps		PER	BULB	
No.	Туре	±109		1-	5- 9	10- 24	25- Up
749-4001 749-4002 749-4003 749-4004 749-4006 749-4007	CM20-1 ° CM20-2† CM20-3 § CM20-4 ‡ CM20-6 ° ° CM20-7 ° °	2.5 2.5 2.5 2.5 6.0 28.0	.350 .325 .350 .350 .200 .040	4.69 8.80 4.80 5.85 4.40 4.50	4.20 8.25 4.32 5.25 3.96 4.05	3.75 7.70 3.85 4.70 3.50 3.60	3.35 6.50 3.45 4.25 3.20 3.25

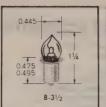
Miniature and Subminiature Incandescent Lamps

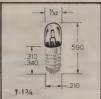
PILOT LIGHTS

BULB STYLE







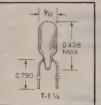




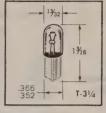














BASE STYLE





























Wide variety of miniature and subminiature incandescent lamps for such applications as aircraft, annunciators, appliances, automotive, bicycles, coin machines, flashlights, marine, medical equipment, indicators, signs and house numbers, radio and TV, telephone, toys and novelties. These lamps offer extra-long life, reliability, low cost, high light output for the amount of current consumed. Low operating cost. Refer to Figure above for abbreviations. \$+10%, -20%. $$\pm20\%$. To order, specify lamp type listed and quantities desired.

ORDER LAMPS LISTED BELOW IN PACKAGES OF 10 ONLY

Stock No.	Туре	Volts	Amps	Base Style	Buib Style	of	Box 10	Stock No.	Туре	Volts	Amps	Base Style	Bulb Style	of	Box 10
602-8402 602-8403 602-8404 602-8406 602-8412	PR-2 PR-3 PR-4 PR-6 PR-12	2.38 3.57 2.33 2.47 5.95	.50 .50 .27 .30 .50	S.C.F. S.C.F. S.C.F. S.C.F. S.C.F.	B-3½ B-3½ B-3½ B-3½ B-3½	1-9 2.00 2.00 2.00 2.00 2.00 2.00	1.60 1.60 1.60 1.60 1.60	602-9285 602-9290 602-9305 602-9310 602-9315	370 375 380 381 382	18 3 6.3 6.3 14	.04§ .015† .04 .20	S.C. Midget Mid. Flanged Mid. Flanged Mid. Flanged Mid. Flanged	T-1% T-1% T-1% T-1% T-1%	1-9 10.50 17.78 14.70 11.90 9.85	9.75 16.39 13.60 9.50 9.00
602-8413 602-9012 602-9013 602-9014 602-9024	PR-13 12 13 14 24E	4.75 6.3 3.7 2.47 24	.50 .15 .30 .30 .035	S.C.F. Min. 2-pin Screw Screw Slide Base	B-3½ G-3½ G-3½ G-3½ T-2	2.00 2.70 1.67 1.67 7.05	1.60 2.16 1.35 1.35 5.65	602-9321 602-9322 602-9323 602-9345 602-9400	386 387 388 425 680	14 28 28 5 5	.08 .04 .04 .50 .060	Mid. Grooved Mid. Flanged Mid. Grooved Screw Wire Term.	T-1¾ T-1¾ T-1¾ G-4½ T-1	10.80 7.50 11.00 2.20 12.00	10.00 6.00 10.00 1.77 11.00
602-9025 602-9040 602-9041 602-9043 602-9044	24X 40 41 43 44	24 6.3 2.5 2.5 6.3	.035 .15 .50 .50 .25	Slide Base Screw Screw Bayonet Bayonet	T-2 T-3¼ T-3¼ T-3¼ T-3¼	7.05 1.40 2.73 2.73 1.43	5.65 1.12 2.18 2.18 1.15	602-9407 602-9412 602-9427 602-9440 602-9442	683 685 715 755 756	5 5 6.3 14	.060 .060 .115 .15	Wire Term. SubMid. F. Wire Term. Min. Bay. Min. Bay.	T-1 T-1 T-1 T-3¼ T-3¼	12.00 14.60 12.00 3.38 4.50	11.00 13.50 11.00 2.70 3.60
602-9045 602-9046 602-9047 602-9048 602-9049	45 46 47 48 48C	3.2 6.3 6.3 2.0 48	.35 .25 .15 .06 .035	Bayonet Screw Bayonet Screw Slide Base	T-3¼ T-3¼ T-3¼ T-3¼ T-2	2.30 1.37 1.43 2.73 7.05	1.84 1.10 1.14 2.18 5.65	602-9444 602-9460 602-9465 602-9475 602-9480	757 1034 1073 1129 1130	28 12.8 12.8 6.4 6.4	.08 1.80 1.80 2.63 2.6	Min. Bayonet D.C. Index S.C. Bayonet S.C. Bayonet D.C. Bayonet	T-31/4 S-8 S-8 S-8 S-8	4.95 4.70 3.10 3.23 4.30	3.95 3.30 2.48 2.58 3.43
602-9050 602-9051 602-9052 602-9053 602-9054	49 50 51 52 53	2.0 7.5 7.5 14.4 14.4	.06 .22 .22 .10 .12	Bayonet Screw Bayonet Screw Bayonet	T-3¼ G-3½ G-3½ G-3½ G-3½	2.28 1.65 1.43 3.55 1.55	1.82 1.32 1.14 2.82 1.24	602-9485 602-9490 602-9500 602-9505 602-9507	1133 1141 1252 1445 1447	6.2 12.8 24 18 18.0	3.91 1.44 .23 .15 .15	S.C. Bayonet S.C. Bayonet D.C. Bayonet Min. Bayonet Min. Screw	RP-11 S-8 G-6 G-3½ G-3½	5.65 3.10 5.80 2.00 2.15	4.50 2.47 4.65 1.60 1.72
602-9055 602-9056 602-9057 602-9063 602-9067	55 55C 57 63 67	7.0 55 14 7.01 13.5	.41 .052 .24 .63 .59	Bayonet Slide Base Bayonet S.C. Bayonet S.C. Bayonet	G-4½ T-2 G-4½ G-6 G-6	1.58 7.05 1.60 2.00 2.07	1.26 5.65 1.28 1.60 1.66	602-9510 602-9520 602-9521 602-9524 602-9527	1458 1487 1488 1490 1493	20 14.0 14 3.2 6.5	.25 .20 .15 0.16 2.80	Min. Bayonet Min. Bayonet Min. Bayonet Min. Bayonet D.C. Bayonet	G-5 T-3¼ T-3¼ T-3¼ S-8	3.65 2.73 2.93 2.25 13.00	2.94 2.18 2.34 1.80 10.50
602-9069 602-9081 602-9082 602-9085 602-9089	68 81 82 88 88L	13.5 6.5 6.5 6.8 6.8	1.02 1.05 1.90 2.00	D.C. Bayonet S.C. Bayonet D.C. Bayonet D.C. Bayonet D.C. Bayonet	G-6 G-6 S-8 S-8	3.00 2.38 2.38 4.28 9.00	2.40 1.90 1.90 3.55 8.00	602-9530 602-9535 602-9563 602-9590 602-9595	1503 1630 1768 1813 1815	5.9 6.5 6 14.4 14.0	6.53 2.75 .20 .10	S.C. Perf. D.C. Perf. Midget Screw Min. Bayonet Min. Bayonet	RP-11 S-8 T-1% T-3% T-3%	11.00 11.50 9.75 2.90 2.45	10.10 10.50 7.80 2.32 1.96
602-9093 602-9112 602-9130 602-9123 602-9125	93 112 159 123 130	12.8 1.2 6.3 1.25 6.3	1.04 22 .15 .30 .15	S.C. Bayonet Screw Wedge Min. Screw Min. Bayonet	S-8 GTL-3 T-31/4 G-31/2 G-31/2	3.00 1.68 2.68 1.80 2.17	2.40 1.34 2.14 1.44 1.74	602-9600 602-9605 602-9610 602-9615 602-9620	1816 1819 1820 1822 1828	13 28 28 36 37.5	.33 .04 .10 .10	Min. Bayonet Min. Bayonet Min. Bayonet Min. Bayonet Min. Bayonet	T-3¼ T-3¼ T-3¼ T-3¼ T-3¼	16.00 3.55 3.85 6.80 7.25	14.50 2.83 3.08 5.45 5.80
602-9140 602-9145 602-9170 602-9180 602-9190	222 239 307 313 324	2.25 6.3 28 28 3	.25 .36 .66 .17	Screw Min. Bayonet S.C. Bayonet Bayonet Wire Term	GTL-3 T-3¼ S-8 T-3¼ T-1¾	1.68 3.50 7.25 3.38 6.30	1.34 2.50 5.80 2.70 5.05	602-9625 602-9630 602-9635 602-9640 602-9645	1829 1835 1847 1850 1855	28 55 6.3 5.0 6.3	.07 .05 .15 .09	Min. Bayonet Min. Bayonet Min. Bayonet Min. Bayonet S.C. Min. Bay.	T-3¼ T-3¼ T-3¼ T-3¼ T-4½	3.80 8.20 1.90 3.80 3.95	3.03 6.55 1.52 3.03 3.15
602-9195 602-9210 602-9215 602-9220 602-9245	327 328 330 331 337	28 6 14 1.35 6	.04 .20 .08 .06 .20	Mid. Flanged Mid. Flanged Mid. Flanged Mid. Flanged Mid. Grooved	T-1% T-1% T-1% T-1% T-1%	6.30 5.00 9.00 10.30 12.00	5.05 4.00 7.15 8.30 11.20	602-9650 602-9660 602-9665 602-9670 602-9675	1864 1869 1891 1892 1893	28.0 10 14.0 14.4 14.0	.17 .014 .24 0.12 .33	Min. Bayonet Wire Term. Min. Bayonet Min. Bayonet Min. Bayonet	T-3¼ T-1¾ T-3¼ T-3¼ T-3¼	4.75 12.40 11.50 2.73 1.97	3.80 9.90 10.60 1.18 1.58
602-9250 602-9260 602-9265 602-9270	338 344 345 346	2.7 10 6 18	.06 .014 .04 .04§	Mid. Flanged Mid. Flanged Mid. Flanged Mid. Grooved	T-1% T-1% T-1% T-1%	9.15 11.50 11.65 11.50	7.30 9.60 9.30 9.60	602-9715 602-9720 602-9721	2180 2181 2182	6.3 6.3 14	.04 .20 .08	Wire Term, Wire Term, Wire Term,	T-1% T-1% T-1%	11.90 6.45 6.90	9.50 5.15 5.55

Allied Industrial and Special Purpose Tubes

TUBES AND ACCESSORIES INDEX

Camera Tubes		86
RCA Corporation		
Communications Tubes	02	84
	03,	04
Allied		
RCA Corporation		
Raytheon		
Sylvania		
	0.5	00
Industrial Tubes 82,	85,	86
Allied		
Amperex		
Elmac		
Electrons		
Machiett Labs		
National Electronics		
RCA Corporation		

Thermosen		
Varian		
* ****		0.0
Readout Tubes	• • • •	86
National Electronics		
RCA Corporation		
Receiving Tubes	83.	84
Allied	,	
RCA Corporation		
Raytheon		
Sylvania		
Special-Purpose Tubes 82,	85.	86
Allied	,	
Amperex		
Elmac		
Electrons		
Machiett Lahs		

RCA Corporation Raytheon Sylvania Thermosen
Varian
Tube Adapters, Test Sockets 88 Vector
Tube Sockets, Shield and Base 87, 88 Amphenol Cinch-Jones E. F. Johnson
Pomona
Vector
Tube Testers
Sencore



Raytheon

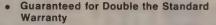
Sylvania







National Electronics



- High-Quality Industrial/Special Purpose Tubes
- Communications and Industrial Applications

ALLIED ELECTRONICS

GUARANTEE

Allied Electronics guarantees these Industrial and Special Purpose tubes for a length of time equal to two times the standard warranty. This warranty does not apply to broken tubes.

tellellellellellellelelet

- Tested to Meet Rigid Specifications
- Manufactured under the Highest Precision Standards
- Stringent Quality Control Procedures Assure Performance
 Maximum Reliability and Longer Life
- In Stock at Lowest OEM Prices Available

The Industrial and Special Purpose tubes listed below have been manufactured to Allied Electronics' specifications to provide high-quality performance, maximum reliability and longer life at the lowest possible OEM prices available. Used in electronic installations the world over,

these tubes are providing distinguished service in a wide variety of applications — transmitting and receiving stations, radar and ground control installations, industrial monitoring and processing control centers, communications networks etc. Allied guarantees these tubes for twice as long as the standard warranty.

ALLIED INDUSTRIAL AND SPECIAL PURPOSE TUBES

Stock	Tube		EACH	
Number	Туре	1-9	10-49	50-Up
610-0030	0A3A	3.93	3.15	2.61
610-0033	0B2	4.08	3.27	2.71
610-0028	0C3A	4.68	3.75	3.12
610-0034	0D3A	4.15	3.33	2.74
610-0100	807	14.62	11.70	9.07
610-0102	866A	12.93	10.35	8.02
610-0104	872A	23.89	22.12	19.90
610-0110	5693	16.80	13.44	11.11
610-0112	5751	7.87	6.30	5.22

Stock	lube			
Number	Туре	1-9	10-49	50-Up
610-0114	5763	6.78	5.41	4.50
610-0116	5814A	7.30	5.85	4.83
610-0118	5881	6.63	5.31	4.65
610-0120	5963	4.05	3.24	2.67
610-0122	5965	6.00	4.80	3.97
610-0124	6012	22.23	17.77	14.70
610-0126	6080	14.50	11.61	9.60
610-0128	6146B/8298A	14.43	11.55	9.00
610-0130	6201	8.70	6.96	5.76

Note. Allied also carries its own line of high-quality receiving tubes. These receiving tubes are listed on the following two pages along with

tubes of other manufactures. They are easily identifiable by Stock Numbers — Allied's tubes have Stock Number prefix 702.

Over 400 Types of Highest Quality
 New Tube Types Placed in Stock When Introduced

You can be sure of being fully satisfied when you order your receiving tubes from Allied. Full two-year guarantee on Allied tubes only: Allied will replace any tube that does not provide efficient performance for 24 months from date of purchase. (Does

- Tubes Can Be Furnished in Production Quantities
- Orders Are Billed at Current OEM Prices
- Allied Receiving Tubes Guaranteed for Two Full Years



not apply to broken tubes). New tube types are placed in stock as they are released from the manufacturer. Tubes can be furnished in production quantities and are billed at current OEM prices -contact your nearest Allied facility.

							187 2 3 2 2 2 A EACH — MAY BE Not 1 10 1 1 1 1 1 EACH — MAY BE Not										
Stock	Tube		- MAY	BE A	Not Asst'd	Stock	Tube		- MAY	BE	Not Asst'd	Stock	Tube		- MAY E	BE	Not Asst'd
No.	Туре	1-9	10-49	50-Up	100-Up	No.	Type, "	1-9	10-49	50-Up	100-Up	No.	Туре	1-9	10-49	50-Up	100-Up
899-0002	0Z4A/0Z4	3.67	2.94	2.17	1.95	899-0225	6AQ8/ECC85	2.52	2.02	1.50	1.35	899-0088	6DQ5	7.60	6.08	4.50	4.05
899-0008	1BC2A	3.22	2.57	1.92	1.73	899-0226	6AR5	2.27	1.82	1.35	1.21	899-0090	6DR7	4.80	3.84	2.85	2.56
899-0019	1G3GT/1B3GT	3.75	3.00	2.22	1.99	899-0232	6AT6	1.75	1.40	1.05	.95	899-0359	6DS4	5.15	4.12	3.05	2.74
899-0022	1K3A/1J3	3.75	3.00	2.22	1.99	899-0052	6AU4GTA	4.57	3.66	2.70	2.43	899-0168	6DT6A	3.07	2.46	1.82	1.64
899-0023	1R5	4.92	3.94	2.92	2.63	899-0235	6AU5GT	4.92	3.94	2.92	2.63	899-0092	6DW4B	3.55	2.84	2.10	1.89
899-0018	1S5	2.87	2.30	1.70	1.53	702-0037	6AU6A	2.82	2.26	1.67	1.50	899-0367	6DX8/ECL84	2.45	1.96	1.45	1.30
899-0020	1U4	3.67	2.94	2.17	1.95	899-0053	6AU8A	5.37	4.30	3.17	2.85	899-0369	6E5	5.37	4.30	3.17	2.85
899-0021	1U5	3.22	2.57	1.92	1.73	702-0137	6AU8A/6KD8	3.67	2.94	2.17	1.95	702-0084	6EA8	3.72	2.98	2.20	1.98
899-0028	1V2	2.25	1.80	1.35	1.21	899-0238	6AV5GA	4.92	3.94	2.92	2.63	899-0169	6EB8	5.37	4.30	3.17	2.85
899-0031	1X2C/1X2B/1X2A	3.90	3.12	2.30	2.07	899-0054	6AV6	2.57	2.05	1.52	1.37	899-0370	6EH4A	7.90	6.32	4.67	4.20
899-0024	2A3	9.10	7.28	5.37	4.83	899-0190	6AW8A	4.25	3.40	2.52	2.27	899-0372	6EH5	3.40	2.72	2.02	1.82
899-0027	2AS2A	3.70	2.96	2.20	1.98	899-0057	6AX4GTB	3.52	2.82	2.10	1.89	899-0095	6EH7/EF183	3.62	2.90	2.15	1.93
899-0183	2AV2	2.97	2.38	1.77	1.59	899-0243	6AX5GT	3.67	2.94	2.17	1.95	899-0374	6EH8	3.30	2.64	1.95	1.75
899-0026	2BU2/2AH2	3.70	2.96	2.20	1.98	899-0249	6B10	4.25	3.40	2.52	2.27	899-0375	6EJ4A	9.45	7.56	5.57	5.01
899-0044	2GK5/2FQ5A	3.65	2.92	2.17	1.95	936-1005	6BA6/EF93	3.10	2.48	1.85	1.66	899-0096	6EJ7/EF184	3.40	2.72	2.02	1.82
899-0045	2GU5	4.57	3.66	2.70	2.43	899-0253	6BA8A	4.92	3.94	2.92	2.63	899-0098	6EM5	4.25	3.40	2.52	2.27
899-0048	3A2	4.75	3.80	2.82	2.54	899-0254	6BA11	4.65	3.72	2.75	2.47	899-0099	6EM7/6EA7	5.35	4.28	3.17	2.85
899-0033	3A3C	3.82	3.06	2.27	2.04	899-0256	6BC5/6CE5	3.10	2.48	1.85	1.66	899-0382	6ES8/ECC189	4.60	3.68	2.72	2.45
899-0051	3AL5	2.45	1.96	1.45	1.30	899-0257	6BC7	3.10	2.48	1.85	1.66	899-0384	6EU7	3.75	3.00	2.22	2.00
899-0034	3AT2B	3.70	2.96	2.20	1.98	899-0058	6BC8/6BZ8	2.94	2.35	2.75	2.47	899-0170	6EW6	3.40	2.72	2.02	1.82
899-0067	3CA3A	3.52	2.82	2.10	1.89	899-0059	6BE6	3.22	2.57	1.92	1.73	899-0389	6EW7	6.22	4.98	3.67	3.30
899-0036	3CB6/3CF6	2.57	2.06	1.52	1.37	899-0269	6BH6	3.80	3.04	2.25	2.02	899-0390	6EZ5	4.82	3.86	2.85	2.56
899-0078	3DG4	5.52	4.42	3.27	2.94	899-0270	6BH8	4.25	3.40	2.52	2.27	899-0392	6F5	5.57	4.46	3.30	2.97
899-0081	3DT6A	3.10	2.48	1.85	1.66	899-0273	6BJ6	3.85	3.08	2.27	2.04	899-0393	6F6	5.85	4.68	3.45	3.10
899-0085	3EJ7/XF184	2.15	1.72	1.27	1.14	899-0060	6BK4C/6EL4A	7.07	5.66	4.17	3.75	899-0400	6FG6/EM84	3.07	2.46	1.82	1.64
899-0037	3GK5	3.65	2.92	2.17	1.95	899-0191	6BK7B	4.52	3.62	2.67	2.40	899-0171	6FG7	4.40	3.52	2.60	2.34
899-0038	3HM5/3HA5	3.62	2.89	2.15	1.93	936-1050	6BL7GTA	5.77	4.62	3.42	3.08	899-0405	6FM7	4.37	3.50	2.60	2.34
899-0091	3HQ5	5.37	4.30	3.17	2.85	899-0062	6BL8/ECF80	2.57	2.06	1.52	1.37	899-0069	6FQ7/6CG7	2.82	2.26	1.67	1.50
899-0093	3KT6	3.57	2.86	2.13	1.92	899-0063	6BN6/6KS6	4.30	3.44	2.55	2.30	899-0410	6FV6	4.25	3.40	2.52	2.27
899-0094	3Q4	2.90	2.32	1.72	1.55	702-0054	6BQ5/EL84	3.70	2.96	2.20	1.98	899-0417	6GC5	5.37	4.30	3.17	2.85
936-1035 899-0106 899-0107 899-0108 899-0113	3V4 4BZ6 4BZ7 4CB6 4DT6A	4.25 3.55 3.82 2.55 3.60	3.40 2.84 3.06 2.04 2.88	2.52 2.10 2.27 1.52 2.12	2.27 1.89 2.04 1.37 1.91	899-0064 702-0056 899-0290 899-0065 899-0294	6BQ6GTB/6CU6 6BQ7A/6B27/ 6BS8 6BR8A/6FV8A 6BU8 6BW4	5.15 5.15 4.92 4.82 2.52	4.12 4.12 3.94 3.86 2.02	3.05 3.05 2.92 2.85 1.50	2.75 2.75 2.63 2.56 1.35	899-0102 899-0103 899-0421 899-0423 899-0424	6GE5 6GF7A 6GH8A 6GJ7/ECF801 6GK5/6FQ5A	5.45 5.02 3.00 2.85 4.40	4.36 4.02 2.40 2.28 3.52	3.22 2.97 1.77 1.70 2.60	
899-0114	4EH7/LF183	3.40	2.72	2.02	1.82	899-0297	6BX7GT	5.65	4.52	3.35	3.01	899-0105	6GK6	3.52	2.82	2.10	1.89
899-0115	4EJ7/LF184	3.40	2.72	2.02	1.82	899-0299	6BY6	3.22	2.58	1.92	1.73	899-0172	6GM6	3.67	2.94	2.17	1.95
899-0041	5AQ5	3.55	2.84	2.10	1.89	899-0066	6BZ6	2.95	2.36	1.75	1.57	899-0109	6GN8	5.37	4.30	3.17	2.85
899-0135	5AR4	3.92	3.06	2.32	2.09	702-0060	6C4	3.52	2.82	2.10	1.89	899-0432	6GT5A	6.05	4.84	3.57	3.21
899-0137	5AS4A	2.90	2.32	1.72	1.55	899-0304	6C5	5.10	4.08	3.02	2.72	899-0110	6GU7	3.95	3.16	2.35	2.11
899-0042	5CG8	3.80	3.04	2.25	2.02	899-0308	6CA4	3.60	2.88	2.12	1.91	899-0434	6GV5	3.90	3.12	2.30	
899-0043	5EA8	5.37	4.30	3.17	2.85	936-1010	6CA7/EL34	5.00	4.00	2.95	2.65	899-0089	6GW6/6DQ6B	5.10	4.08	3.02	
899-0164	5GH8A	4.47	3.58	2.65	2.38	899-0311	6CB5A	9.45	7.56	5.57	5.01	936-1060	6GW8/ECL86	2.55	2.04	1.52	
899-0174	5JK6	3.53	2.82	2.10	1.89	899-0193	6CB6A/6CF6	3.10	2.48	1.85	1.66	899-0173	6GY6/6GX6	3.25	2.60	1.92	
899-0176	5KE8	5.77	4.62	3.42	3.08	899-0068	6CD6GA	6.35	5.08	3.75	3.37	936-1015	6H6	5.27	4.22	3.12	
936-1040 702-0023 899-0185 899-0186 702-0024	5U4G 5U4GB 5U8 5U8 5V4GA 5V4GB	2.97 2.90 4.45 4.07 2.90	2.38 2.32 3.56 3.26 2.32	1.77 1.72 2.62 2.42 1.72	1.59 1.55 2.36 2.18 1.55	899-0316 899-0070 899-0318 899-0162 702-0066	6CG3/6BW3 6CG8A 6CH8 6CJ3/6CH3 6CL6	3.72 4.07 4.85 3.55 4.52	2.98 3.26 3.88 2.84 3.62	2.20 2.42 2.87 2.10 2.69	1.98 2.18 2.58 1.89 2.42	899-0454 899-0455 899-0458 899-0112 899-0463	6HG8/ECF86 6HJ8 6HM5/6HA5 6HQ5 6HS5	3.70 2.10 3.62 4.80 7.40	2.96 2.16 2.90 3.84 5.92	2.66 1.60 2.15 2.85 4.37	1.44
702-0025	5Y3GT	2.82	2.26	1.67	1,50	899-0072	6CL8A	4.25	3.40	2.52	2.27	899-0464	6HS6	3.52	2.82	2.10	
899-0192	5Z3	4.25	3.40	2.52	2,27	899-0326	6CM6	3.67	2.94	2.17	1.95	899-0175	6HS8	4.50	3.60	2.67	
899-0187	6AB4	3.42	2.74	2.02	1.82	899-0165	6CM7	3.95	3.16	2.35	2.11	899-0177	6HZ6	3.00	2.40	1.77	
899-0197	6AC7	5.47	4.38	3.25	2,92	899-0075	6CQ8	4.37	3.50	2.60	2.34	899-0470	6J5	4.40	3.52	2.60	
899-0047	6AF3	3.75	3.00	2.22	2.00	899-0076	6CU5	3.82	3.06	2.27	2.04	899-0471	6J5GT	4.40	3.52	2.60	
899-0201 899-0206 899-0207 899-0208 936-1045	6AF4 6AG5 6AG7 6AG9 6AH6	4.65 4.12 7.35 6.30 5.55	3.72 3.30 5.88 5.04 4.44	2.75 2.42 4.35 3.72 3.27	2.47 2.18 3.91 3.35 2.94	899-0077 936-1055 899-0079 899-0166 899-0083	6CW4 6CW5/EL86 6CX8 6CY5 6CZ5	5.37 2.32 4.85 4.62 4.52	4.30 1.86 3.88 3.70 3.62	3.17 1.37 2.87 2.75 2.67	2.85 1.23 2.58 2.47 2.40	899-0118 936-1025 899-0449 899-0476 899-0178	6J6A 6J7 6JB5/6HE5 6JB6A 6JC6A	4.25 6.05 4.52 6.07 4.25	3.40 4.84 3.62 4.86 3.40	2.52 3.57 2.67 3.60 2.52	3.21 2.40 3.24
899-0188 702-0031 899-0050 702-0033 899-0189	6AK5/EF95 6AL5 6AM8A 6AN8A 6AQ5A	4.52 2.82 4.37 4.75 3.20	3.62 2.26 3.50 3.80 2.56	2.67 1.67 2.60 2.82 1.90	2.40 1.50 2.34 2.54 1.71	899-0343 899-0345 899-0084 899-0167 899-0349	6D10 6DC6 6DE4/6CQ4 6DE6 6DE7	4.67 3.67 3.95 3.10 4.25	3.74 2.94 3.16 2.48 3.40	2.77 2.17 2.35 1.85 2.52	2.49 1.95 2.11 1.66 2.27	899-0479 899-0120 899-0486 899-0487 899-0493	6JD6 6JH6 6JK8 6JM6A 6JS6C	4.37 3.40 4.65 5.45 7.02	3.50 2.72 2.75 4.36 5.62	2.60 2.02 2.47 3.22 4.15	1.82 2.22 2.90
899-0223 899-0224	6AQ6 6AQ7GT	3.10 3.97	2.48 3.18	1.85 2.35	1.66 2.11	899-0087 899-0353	6DK6 6DM4A/6DA4	3.40 3.52	2.72 2.82	2.02 2.10	1.82	899-0494 899-0495	6JT6A 6JT8	5.60 4.25	4.48 3.40	3.32 2.02	

Receiving Tubes (Cont'd)

Stock	Tube	EACH	- MAY		Not Asst'd	Stock	Tube		MAY I	BE	Not Asst'd	Stock	Tube / 2		- MAY I	BE	Not Asst'd
No.	Туре	1-9	10-49	50-Up	100-Up	No.	Туре	1-9		50-Up	100-Up	No.	Туре	1-9	10-49	50-Up	100-Up
899-012 899-049 899-049 899-018 899-050	6JW8/ECF802 6K6GT	4.20 4.20 2.95 3.80 5.20	3.36 3.36 2.36 3.04 4.16	2.50 2.50 1.75 2.25 3.06	2.25 2.25 1.57 2.02 2.75	899-0617 899-0622 899-0626 899-0136 899-0650	8BN11 8CN7 8EM5 8FQ7/8CG7 10BQ5	3.68 2.79 3.90 2.82 2.33	2.94 3.12 2.26 1.86	2.45 2.30 1.67 1.37	2.25 2.07 1.50 1.23	899-0809 899-0810 899-0812 899-0815 899-0819	14BL11 14BR11 14JG8 15CW5/PL84 15KY8A	6.97 5.52 2.50 2.28 6.05	5.58 4.42 1.82 4.84	4.12 3.27 1.35 3.57	3.71 2.94 1.21 3.21
899-012 899-050 899-050 899-051 899-052	7 6KD6 9 6KE8 7 6KT8	4.62 8.50 5.77 5.15 5.57	3.70 6.80 4.62 4.12 4.46	2.75 5.02 3.42 3.05 3.30	2.47 4.52 3.08 2.75 2.97	899-0654 899-0656 899-0660 899-0668 899-0676	10DX8/LCL84 10EM7 10GN8 10LE8 11CA11	2.53 4.53 4.65 5.65 6.92	2.02 3.62 3.72 4.52 5.54	1.50 2.67 2.75 3.35 4.10	1.35 2.40 2.47 3.01 3.69	899-0823 899-0825 899-0826 899-0832 899-0833	16AK9 16BQ11 16BX11 17AX3 17AX4GTA	6.90 4.50 5.25 2.45 3.37	5.52 3.60 4.20 1.96 2.70	4.07 2.67 3.10 1.45 2.00	3.66 2.40 2.79 1.30 1.80
899-012 899-012 899-052 936-102 899-052	6 6KZ8 1 6L6 0 6L6GC	7.07 3.87 9.72 5.77 5.30	5.66 3.10 7.78 4.62 4.24	4.17 2.30 5.75 3.42 3.12	3.75 2.07 5.17 3.08 2.81	899-0679 899-0686 899-0694 899-0697 899-0698	11FY7 12AB5 12AL5 12AQ5 12AT6	3.52 3.67 2.60 3.30 2.62	2.82 2.94 2.08 2.64 2.10	2.10 2.17 1.55 1.95 1.55	1.89 1.95 1.40 1.75 1.40	899-0836 899-0841 899-0842 899-0848 899-0849	17BE3/17BZ3 17BS3A/17DW4A 17BW3 17DE4 17DM4A	3.52 3.52 2.77 3.47 3.85	2.81 2.81 2.22 2.78 3.08	2.10 2.10 1.65 2.05	1.89 1.89 1.48 1.84
899-052 899-053 899-053 899-053	2 6LJ8 5 6LQ6/6JE6C 9 6LT8	4.87 4.17 8.42 3.80 3.70	3.90 3.34 6.74 3.04 2.96	2.87 2.47 4.97 2.25 2.20	2.58 2.22 4.47 2.02 1.98	899-0182 702-0148 702-0149 702-0150 899-0700	12AT7/ECC81 12AU6 12AU7A/ECC82 12AV6 12AV7	3.22 3.35 2.87 2.17 4.37	2.58 2.68 2.30 1.74 3.50	1.92 1.97 1.70 1.30 2.60	1.73 1.77 1.53 1.17 2.34	899-0860 899-0865 899-0871 899-0881 899-0888	17JG6A 17JZ8 18FY6A 19GQ7 19T8	6.27 3.40 2.82 3.41 4.65	2.72 3.72	2.02	1.82.
899-054 899-054 899-055 899-055 899-012	6 6MF8 3 6N7 4 6N7GT	5.40 4.55 4.82 5.65 3.52	4.32 3.64 3.86 4.52 2.82	3.20 2.70 2.85 3.35 2.10	2.88 2.43 2.56 3.01 1.89	899-0701 899-0140 702-0152 899-0703 936-1029	12AW6 12AX4GTB 12AX7A/ECC83 12AY3A 12AY7	3.07 3.15 2.65 2.77 5.45	2.46 2.52 2.12 2.22 4.36	1.82 1.87 1.57 1.65 3.22	1.64 1.68 1.41 1.48 2.90	899-0890 899-0893 899-0899 899-0902 899-0904	20AQ3/LY88 21GY5 21LR8 22BW3 22JF6	3.03 4.40 4.32 3.85 6.70	2.42 3.45	2.55	2.29
899-055 936-103 899-056 899-056 899-056	0 6SC7 3 6SF5 6 6SH7	4.75 5.15 4.77 5.90 5.10	3.80 4.12 3.82 4.72 4.08	2.82 3.05 2.82 3.50 3.02	2.54 2.74 2.54 3.15 2.72	899-0142 899-0705 702-0155 702-0156 702-0157	12AZ7A 12B4A 12BA6 12BE6 12BH7A	3.80 3.80 2.70 2.87 3.67	3.04 3.04 2.16 2.30 2.94	2.25 2.25 1.60 1.70 2.17	2.02 2.02 1.44 1.53 1.95	899-0910 899-0911 899-0920 899-0922 899-0931	23JS6A 23Z9 25C5 25CD6GB 25L6GT/25W6GT	10.85 4.52 3.52 6.12 3.52	8.68 3.62 2.82 2.82	6.40 2.67 2.10 2.10	5.76 2.40 1.89
899-056 899-012 702-013 899-057 899-057	8 6SL7GT 5 6SN7GTB 3 6SQ7	4.72 4.67 3.80 4.70 4.25	3.78 3.74 3.04 3.76 3.40	2.80 2.77 2.25 2.77 2.52	2.52 2.49 2.02 2.49 2.27	899-0716 702-0158 899-0728 899-0742 899-0746	12BS3A/12DW4A 12BY7A/12BV7/ 12DQ7 12BZ7 12DT8 12DZ6	3.52 3.52 3.50 3.40 3.35	2.81 2.81 2.80 2.72 2.68	2.10 2.10 2.07 2.02 2.24	1.89 1.89 1.86 1.82 2.05	899-0933 899-0935 899-0940 899-0943 899-0946	25Z6GT 27GB5/PL500 31AL10 32ET5A 33GY7A	3.67 3.43 5.88 2.23 6.10	2.93 2.74 4.70 1.78 4.88	3.60	3.24
899-012 899-058 702-013 899-058 899-058	0 6U5 7 6U8A/6KD8 3 6U10	4.47 6.42 3.67 3.85 6.42	3.58 5.14 2.94 3.08 5.14	2.65 3.80 2.17 2.27 3.80	2.38 3.42 1.95 2.04 3.42	899-0760 899-0762 899-0763 899-0764 899-0765	12GJ5A 12GT5 12GW6/12DQ6B 12H6 12HE7	3.93 4.95 4.87 4.25 6.33	3.96 3.90 3.40 5.06	2.92 2.87 2.52 3.75	2.63 2.58 2.27 3.37	899-0947 899-0194 899-0195 899-0853 702-0169	33JV6 34GD5A 35C5 35L6GT 35W4	4.00 2.75 3.02 3.67 1.87	2.20 2.42 2.94 1.50	1.62 1.80 2.17 1.12	1.46 1.62 1.95 1.01
899-013 899-058 899-013 899-058 899-059	7 6W4GT 2 6W6GT 9 6X4	4.25 3.12 4.37 3.25 3.42	3.40 2.50 3.50 2.60 2.74	2.52 1.85 2.60 1.92 2.02	2.27 1.66 2.34 1.73 1.82	899-0766 899-0778 899-0780 899-0788 899-0790	12HG7/12GN7A 12MD8 12SA7 12SK7 12SL7GT	5.27 4.62 4.75 5.02 4.72	4.22 3.70 3.80 4.02 3.78	3.12 2.75 2.82 2.97 2.80	2.81 2.47 2.54 2.67 2.52	899-0196 899-0961 899-0967 702-0171 899-0198	35Z5GT 38HE7 50A5 50C5 50EH5	3.17 6.95 4.95 2.87 3.40	2.54 5.56 3.96 2.30 2.72	1.87 4.10 2.92 1.70 2.02	1.68 3.69 2.63 1.53 1.82
899-013 899-059 899-059 899-013 899-059	3 6Y6GA/6Y6G 5 6Z10/6J10 4 7AU7	4.25 4.72 5.77 2.92 3.98	3.40 3.78 4.62 2.34 3.18	2.52 2.80 3.42 1.72 2.35	2.27 2.52 3.08 1.55 2.11	899-0791 899-0792 899-0795 899-0796 899-0797	12SN7GTA 12SQ7 12V6GT 12W6GT 12X4	4.07 4.70 4.25 4.65 2.10	3.26 3.76 3.40 3.72 1.68	2.42 2.77 2.52 2.75 1.25	2.18 2.49 2.27 2.47 1.12	899-0199 899-0988 899-0990 899-0992 899-0993	50L6GT 6973 7027A 7199 7247	4.25 4.80 7.10 5.37 3.85	3.40 3.84 5.68 4.30 3.08	2.52 2.85 4.20 3.17 2.27	2.27 2.56 3.78 2.85 2.04
899-060 899-013 899-061	5 8AW8A	5.40 5.10 5.22	4.32 4.08 4.18	3.20 3.02 3.10	2.88 2.72 2.79	899-0800 899-0801 899-0808	13DR7 13EM7/15EA7 13Z10/13J10	5.45 5.85 5.95	4.36 4.68 4.76	3.22 3.45 3.52	2.90 3.10 3.17	899-0997 899-0998 899-1000	7581A 7591A 7868	6.17 2.57 5.37	4.94 2.06 4.30	3.65 1.52 3.17	3.28 1.37 2.85
1	3											899-1001	8417	5.22	4.18	3.10	2.79

TECHNICAL MANUALS FOR INDUSTRY



RECEIVING TUBE MANUAL

- . 672 Pages of Updated Information
- Schematic and Pictorial Illustrations

RC-28. Full technical data on over 1400 current electron tubes and basic data for replacement. Numerous charts, diagrams, schematics and pictorial outlines make this manual especially helpful to instructors and students. 672 pages.



PHOTOMULTIPLIER MANUAL

TUBE SUBSTITUTION HANDBOOK

62-2030. This 96 page handbook contains information on more than 12,000 direct tube substitutions. Completely up-to-date, this handbook represents an invaluable reference book for hobbyists, engineers, designers and field technicians. Covers all tube types - picture, miniature, industrial and receiving. Also includes cross references for picture tubes, miniature tubes and industrial 910-5613.1-99Each 1.75 100-UpEach 1.40



Minimum Order 5 Tubes, Receiving Tubes Only

Industrial and Special Purpose Tubes

						peolai i			•	abc.			JUDE	The same
Stock No.	Tube Type	1-9	10-49	50-Up	Stock No.	Tube Type	1-9	10-49	50-Up	Stock No.	Tube Type	1-9	10-49	50-Up
903-0002 903-0003 610-0030 903-0030 903-0013	0A2 0A3 0A3A 0A3A 0A4G	2.45 2.92 3.93 2.62 4.27	1.96 2.37 3.15 2.10 3.42	1.62 1.94 2.61 1.74 2.83	651-0150 651-0381 651-0195 900-0331 900-0309	85A2/0G3 EF86/6267 EF91 105 HF300	4.22 3.38 7.67 70.14 76.00	3.38 2.70 6.14 59.00	2.60 2.43 5.53 53.10	903-0116 900-0682 903-0118 903-0120 903-0122	5670 5675 5686 5687 5691	5.15 11.10 7.17 7.75 10.60	4.12 10.30 5.74 6.20 10.49	3.41 9.27 4.75 5.13 8.48
610-0033 903-0034 903-0019 903-0023 903-0025	0B2 0B2 0B2WA 0C2 0C3	4.08 2.72 4.57 3.02 2.80	3.27 2.18 3.66 2.42 2.24	2.71 1.81 3.03 2.01 1.85	936-0100 900-0334 900-0337 903-0512 903-0533	304TL 407A 408A CK512AX CK533AX	101.87 9.50 8.82 8.70 8.75	83.00 7.60 7.06 6.96 7.00	74.70 6.27 5.84 6.00 6.00	903-0124 610-0110 903-0126 900-0704 903-0128	5692 5693 5693 5696 5725	13.97 16.80 11.20 3.67 6.12	11.18 13.44 8.96 2.94 4.90	9.24 11.11 7.41 2.43 4.05
610-0028 903-0028 903-0031 610-0034 903-0034	0C3A 0C3A 0D3 0D3A 0D3A	4.68 3.12 2.80 4.15 2.71	3.75 2.50 2.24 3.33 2.22	3.12 2.08 1.85 2.74 1.83	903-0069 900-0350 866-0021 866-0022 866-0024	575A 604/7014 NL606 NL606L NL615	33.73 17.62 35.74 36.50 12.69	28.25 15.00 28.60 31.10 10.15	25.42 13.50 25.74 27.99 9.13	903-0130 903-0132 903-0134 610-0112 903-0136	5726 5727 5749 5751 5751	3.90 5.37 5.45 7.87 5.25	3.12 4.29 4.36 6.30 4.20	2.58 3.56 3.60 5.22 3.48
549-0013 903-0022 900-0054 900-0055 900-0058	EL1C C1K/6014 1LH4 1P21 1P22	17.54 14.95 10.00 70.14 26.38	15.00 12.90 58.80 22.10	11.80	900-0353 900-0356 900-0359 866-0033 866-0660	615/7018 627 632B NL635L/7020 NL660L/7786	11.44 38.41 40.08 21.21 26.64	9.15 30.73 35.50 18.15 22.80	8.23 29.00 31.95 16.33 20.52	903-1155 900-0737 610-0114 903-0138 610-0116	CK5755 5762 5763 5763 5814A	12.46 423.34 6.78 4.52 7.30	9.97 310.00 5.41 3.61 5.85	8.97 4.50 3.00 4.83
900-0061 900-0064 903-0037 903-0038 900-0079	1P28 1P28A 1P39 1P40 2AP1A	31.23 38.74 8.88 13.00 32.98	26.15 32.45 7.10 10.40 27.65	23.53 29.20 5.50 8.05 24.88	900-0362 900-0374 866-0057 866-0066 866-0069	672A 710/6011 NL714 NL740P/6857 NL760	50.52 14.61 14.86 32.56 34.82	43.00 13.15 12.70 26.75 29.80	38.70 11.83 11.43 24.07 26.82	903-0139 903-0140 979-5108 651-0301 651-0316	5814A 5823 5841 5842/417A 5868	4.87 3.10 25.41 12.77 138.61	3.90 2.48 20.33 10.21 110.89	3.22 2.05 18.30 8.44 103.50
784-0001 900-0082 903-0169 900-0086 903-0039	2AS15A 2BP1 2C39A 2C39WA/C 2D21	20.20 25.25 41.75 21.71 2.70	18.18 21.15 32.00 20.75 2.16	19.03 28.80 1.78	866-0070 866-0071 866-0077 610-0100 903-0070	NL760L NL760P NL803 807 807	36.82 36.82 13.25 14.62 9.75	31.50 31.50 10.60 11.70 7.80	28.35 28.35 9.00 9.07 6.05	651-0319 903-0142 903-1205 610-0118 903-0144	5869 5876A CK5879 5881 5881	45.92 11.44 4.27 6.63 4.42	38.25 10.60 3.42 5.31 3.54	34.42 9.54 2.40 4.65 3.10
900-0110 651-0016 903-0040 900-0125 903-0035	2E26 2J55 2X2A 3AP1A RK3B24W	8.25 417.50 9.82 60.12 15.03	6.60 375.00 7.86 50.40 13.45	5.15 6.10 12.10	900-0389 900-0392 903-0072 900-0401 900-0410	811A 812A 813 828 833A	14.87 12.25 37.84 50.10 91.85	11.90 9.80 31.70 42.00 75.90	9.25 7.60 28.53 37.80 68.31	903-1212 903-1250 903-0146 903-0148 610-0120	CK5886 CK5889 5894 5915 5963	10.60 29.06 32.98 3.37 4.05	8.48 23.25 31.25 2.70 3.24	7.30 20.92 28.12 2.23 2.67
903-0036 900-0134 900-0137 549-0033 549-0035	RK3B24WB 3B28 3BP1A EL3C 3C/L	15.03 11.36 45.92 24.05 27.55	13.45 10.55 38.50 20.55 23.55	12.10 9.50 34.65 18.50 21.20	866-0083 866-0084 610-0102 903-0073 900-0422	840/8754 NL841 866A 866A 868	11.75 12.37 12.93 8.62 10.69	9.40 9.90 10.35 6.90 9.90	8.00 8.40 8.02 5.35 8.91	903-0150 903-0152 610-0122 903-0154 903-1260	5963 5964 5965 5965 5976	2.70 3.42 6.00 4.00 120.24	2.16 2.74 4.80 3.20 96.19	1.78 2.27 3.97 2.65 85.00
900-0140 549-0166 900-0155 903-0041 903-0189	3C23 3CJ/5632 3E29 C3J/L C3JA/5684	12.74 18.03 30.48 17.45 16.45	11.98 15.45 25.55 15.05 13.16	10.78 13.90 22.99 13.54 11.84	610-0104 900-0074 903-0075 900-0455 900-0458	872A 872A 884 922 923	23.89 15.93 5.62 8.87 11.50	22.12 14.75 4.49 7.10 9.20	19.90 13.27 3.72 5.50 7.10	903-0156 610-0124 903-0158 903-0160 610-0126	6005 6012 6012 6072 6080	6.57 22.23 14.82 6.42 14.50	5.26 17.77 11.85 5.14 11.61	4.34 14.70 9.80 4.24 9.60
900-0166 651-0026 900-0181 900-9000 900-0201	3RP1 4B32 4CX250B 4GS8 5ADP1	26.72 15.45 40.08 4.10 70.97	22.40 12.50 34.35 59.50	11.25 30.91 53.55	903-0077 903-0079 903-0080 900-0476 900-0479	927 929 930 931A 931VA	12.44 10.82 11.75 16.78 17.53	11.54 8.66 9.40 14.90 15.50	10.39 6.70 7.25 13.41 13.95	903-0162 651-0352 651-0355 903-1231 903-0164	6080 6084 6085 CK6088 6111	9.67 12.75 13.37 6.90 6.07	7.74 10.20 10.70 5.52 4.86	6.40 7.55 7.80 4.75 4.02
900-0203 900-0202 900-0204 900-0205 903-0060	5ADP2 5ADP31 5AS8 5DH8 5R4GYA	78.07 65.96 3.55 7.50 3.27	2.62	2.25	903-0082 900-0485 900-0488 903-0084 903-0086	934 935 955 CK1104 CK1114	11.79 21.21 12.00 10.45 12.50	10.94 17.80 9.60	9.85 16.02 7.93	900-0852 903-0166 903-0168 610-0128 903-0170	6130/3C45 6136 6146A 6146B/8298A 6146B/8298A	35.07 5.75 7.87 14.43 9.62	28.06 4.60 6.30 11.55 7.70	25.00 3.80 4.90 9.00 6.00
903-0061 903-0065 900-0216 900-0237 903-0066	5R4GYB 5R4WGB 5UP1 6AK6 6AS6	3.75 15.66 28.81 2.55 6.37	3.00 12.53 24.15 2.04 5.10	2.60 21.73 1.68 4.22	903-0088 903-0090 903-0092 903-0094 903-0096	CK1115 CK1121 CK1122 CK1123 CK1124	12.50 5.82 6.32 5.55 5.37	ende .		903-0172 900-0870 900-0897 900-0901 610-0130	6146W 6159B 6197 6199 6201	11.62 9.25 5.10 74.31 8.70	9.29 7.40 4.08 62.30 6.96	7.20 5.75 3.38 56.07 5.76
900-0244 900-0249 900-0254 900-0255 900-0259	6AS7G 6AU6WB 6BS8 6DJ8/ECC88 6FG5	8.92 5.37 4.50 3.85 4.75	7.14 4.30 3.08	5.90 3.56 2.55	784-0006 900-0510 900-0513 900-0528 900-0540	1236C 1619 1620 1629 1949	30.35 13.35 14.38 5.25 31.73	10.68 11.50 4.20 26.60	8.82 9.51 3.47 23.94	903-0174 900-0907 900-0910 651-0384 900-0925	6201 6202 6211 6279/5022 6336A	5.80 4.35 4.47 115.23 33.40	4.64 3.48 3.58 92.50 26.72	3.84 2.87 2.95 83.25 24.05
900-9091 549-0100 903-0191 900-0270 900-0271	6HA6 ELC6J ELC6J/A5685 6J6WA 6Q4	3.58 35.90 33.57 10.70 10.10	32.60 29.10 8.56	29.34 26.19 5.99	903-0098 903-0100 651-0289 903-0102 903-0106	2050 2050A 5545 5550 5551A	4.15 4.10 132.76 72.73 92.93	3.32 3.28 110.50 58.18 74.34	2.75 2.72 99.45 53.75 71.00	651-0387 903-0176 903-1290 903-0178 900-0961	6354 6360A CK6528 6550 6570	4.20 12.00 26.30 10.00 17.87	3.36 9.60 21.04 8.00 15.00	2.92 6.25 18.94 6.61 13.50
900-0272 900-0273 900-0301 900-0303 900-0304	6S8GT 6SJ7Y 6SL7WGT 7GV7 10CW5/LL86	5.00 4.25 7.50 4.50 2.20	3.40	2.82	900-0619 900-0622 900-0628 900-0634 903-0108	5557 5558 5560 5563A 5581	10.32 20.46 36.66 73.48 10.35	9.50 17.50 33.80 61.60 9.60	8.55 15.75 30.42 55.44 8.64	903-0180 903-0184 651-0417 979-5113 866-0123	6626/OA2WA 6688A 6689 6842 NL6844A	5.62 14.43 13.00 48.68 13.44	4.50 11.54 10.40 38.94 11.00	3.72 9.54 7.60 35.05 9.90
903-0067 900-0305 900-0308 900-0306 900-0307	12AT7WA 12AU7WA/6189 17GW6/170Q6B 18FX6A 21GU5	4.75 6.52 4.87 2.65 4.28	3.80 5.22	3.14 4.32	900-0640 903-0110 900-0653 903-0104 903-0112	5582 5583 5642 5651 5651A	10.35 12.77 6.30 3.07 3.30	9.60 11.85 5.04 2.46 2.64	8.64 10.66 3.53 2.15 2.19	903-0186 903-1301 900-1040 900-1043 866-0132	6883B/8032A/8552 CK6909 6922/E88CC 6939 NL6989NE	10.25 19.09 8.00 13.79 43.59	8.20 16.35 6.40 11.03 37.30	6.35 14.71 5.35 9.93 33.57
651-0067 900-0328	EL34/6CA7MP 83	11.20 4.35	8.96 3.48	2.87	903-0114 900-0670	5654 5663	3.82 4.75	3.06 3.80	2.54 3.17	866-0133 651-0445	NL7009 7025/12AX7	19.71 2.58	15.77 2.06	1.85
011	- 1 1 11				0 -1									

Industrial Tubes (CONT'D)

		E	ACH		Ctonk	Tube		EACH		Stock	Tube	E	ACH	
Stock No.	Tube Type	1-9	10-49	50-Up	Stock No.	Туре	1-9	10-49	50-Up	No.	Туре	1-9	10-49	50-Up
866-0139 900-1056 900-1087 900-1090 651-0454	NL7037 7038 7094 7102 7119	33.98 233.80 65.21 144.45 10.44	27.18 175.00 54.65 120.00 8.35	26.00 157.50 49.18 108.00 7.51	903-0188 900-2036 866-0160 900-2049 900-2050	7587 7643 NL7723NE 7735 7735A	10.25 12.50 18.54 49.26 133.60	8.20 10.00 15.90 39.41 110.00	6.78 8.26 14.31 36.00 99.00	866-0174 900-2038 900-2092 900-2098 900-3010	NL8037/5031 8042/4652 8056 8072 8134	18.54 14.19 9.55 30.14 183.70	5.75 13.20 7.64 25.25 146.96	14.17 11.88 6.32 22.72 135.00
651-0460 900-2035 900-2004 900-2016 900-2019	7189 7250 7262A 7308 7360	3.70 12.60 258.85 10.50 8.12	2.96 207.08 8.40 6.50	2.66 190.00 6.40 5.38	900-2053 900-2054 900-2062 900-2068 651-0524	7735B 7788 7895 7905 7986/5866A	233.80 15.70 7.05 7.90 60.12	187.04 12.56 5.64 6.32 48.10	175.00 11.30 4.67 5.23 45.00	900-2039 776-0115 900-3048 866-0182 866-0183	8233/E55L 8252/4PR60B 8393 NL8421/5092 NL8422/5991	20.04 138.61 6.92 18.54 18.54	16.03 5.54 15.75 15.75	14.42 4.58 14.17 14.17
5 651-0458 900-2025 900-2034	7459 7551 7586	450.90 6.62 7.05	360.72 5.30 5.64	335.00 4.38 4.67	900-2071 900-2083 900-2086	8000 8020W 8032	37.41 18.37 9.00	31.35 16.50 7.20	28.21 14.85 5.60	900-2040 776-0053	8552 8802/3-500Z	11.75 52.10	41.68	37.00

VIDICONS FOR COMMERCIAL, EDUCATIONAL, INDUSTRIAL AND MILITARY TV



CHOOSE FROM THESE CATEGORIES

FOCUS AND DEFLECTION METHOD. Magneticfocus, magnetic-deflection vidicons provide highest center and corner resolution but require the most electrical power and result in TV cameras having the most weight. Electrostatic-focus, magnetic-deflection vidicons have intermediate resolution capability, require intermediate electrical power, and find use in compact lightweight cameras.

SEPARATE MESH ELECTRODE. Available with separate or with conventional mesh connection. Separate mesh connection vidicons provide higher and more uniform resolution and signal output when operated at high voltage than do comparable size vidicons having mesh and wall electrodes connected.

HEATER POWER. Vidicons are stocked with conventional 3.8 Watt Heaters and with 0.6 Watt "Dark Heaters" for transistorized TV cameras

TUBE DIAMETER. Larger Tube diameter provides more TV lines per picture height, which results in clearer reproduction.

HIGH-PERFORMANCE BROADCAST-QUALITY FOR STUDIO FILM PICKUP SERVICE

Stock		Dia.	Mesh-Wall		.~	Heater	EA	CH
No.	Type	Inch	Connection	Focus	Deflection	Watts	1-4	5-Up
900-1056	7038	1	Conventional	Magnetic	Magnetic	3.8	\$233.80	175.00

HIGH-PERFORMANCE BROADCAST AND INDUSTRIAL APPLICATIONS

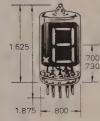
Stock	Dia. Mesh-Wall				Heater	EA	СН	
No.	Тура	Inch	Connection	Focus	Deflection	Watts	1-4	5-Up
900-2004 900-2053 900-3010	7262A 7735B 8134	1 1	Conventional Conventional Separate	Magnetic Magnetic Electrostatic	Magnetic Magnetic Magnetic	0.6 3.8 0.6	258.85 233.80 183.70	190.00 175.00 146.96

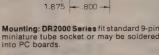
GENERAL CLOSED-CIRCUIT APPLICATIONS

Sto	nek		Dia.	Mesh-Wall			Heater	EA	CH
No		Type	Inch	Connection	Focus	Deflection	Watts	1-4	5-Up
900-		7735 7735A	1	Conventional Conventional	Magnetic Magnetic	Magnetic Magnetic	3.8 3.8	49.25 133.60	36.00 110.00

Adjustable **Brightness**

Interference Free





- Can Be Read Even **Under High Ambient** Light
- Life in Excess of Four Years
- Uniform Color and Intensity

INCANDESCENT DIGITAL READOUT TUBES

- High-contrast Clutter-free Displays Viewed Against Dark Background PC or Standard Socket Mounting
- . Wide-spectrum Light Emission Permits Filter Selection for Variety of Colors . Wide Viewing Angle
- Compatible with Low-cost Integrated-circuit Decoder/drivers Low-voltage Operation

Provide bright displays ideally suited for most types of digital-readout systems. These low-voltage devices may be operated in either a DC or multiplex mode. Rugged, single-plane unit construction for high reliability and 100,000 hour life. Up-front display surface permits a wide viewing angle with a display that is free of residual images. Brightness adjustable, with simple

voltage controls, from zero output to a level easily seen under high ambient light. Free of induced or radiated interference. Power Requirement: 108 mW/segment. DC Segment Voltage: 4.5. Segment Current: 24 mA. DR2000 Series for 9-pin minature tube socket or PC.

Stock	Mfr's	,	F . 1	Viewing	Size	Char.	EA	CH
No.	Туре	Description	Mounting	Angle	Size, Dia. x Envel. L.	Ht.	1-49	50-Up
902-0300 902-0310	DR2000 DR2010	0-9 0-9, L.H. dec.	PC or 9-pin skt. PC or 9-pin skt.	140° 140°	.800 x 1.625 .800 x 1.625	.600 .600	11.25 11.87	5.50 5.75

NUMERICAL NEON-GLOW READOUT TUBES

Visible display is a red-orange neon glow in the form of desired character. Uniform color and intensity. Under most difficult conditions, as display of one number only, life is in excess of four years.

With different numbers life is much greater. Regular types have 5000-8000 hours. *200,000 hours or 20 years. †Wide-angle. ‡rectangular. §left-hand decimal point. Shpg. wt. 4 oz.

				Max.		Cat	hode	mA	Pre-		Max. Tu	ibe Size	Max. View	Fits	EACH
Stock No.	Tube Type	Fig.	Description	DC Ion V.	DC Supp. V.		Av. Max.	Av. Min.	Bias V. Limits	Char. Ht. (in.)	Ht. (In.)	Dia. (in.)	Dis- tance (Ft.)	Socket	
866-0182 866-0183 866-0123 866-0139 866-0077	*NL-8421/5092 *NL-8422/5991 NL-6844A *NL-7037 *NL-803	A A B B	†End View (0-9) ‡End View (0-9) End View (0-9) Side View (0-9) Side View (0-9)	170 170 170 200 170	170 170 170 200 170	3.5 3.5 4.0 10 3.5	3.0 3.0 3.0 10 3.0	1.5 1.5 6	50-120 50-120 50-120 65-120 50-120	.610 .610 2.000	1.125 .862 1.125 3.625 1.937	1.080 1.020 1.080 2.030 .875	30 30 100	RTS-4 RTS-4	18.55 18.55 13.44 34.00 13.25
866-0083 866-0084 866-0174	*NL-840/8754 *NL-841 *NL-8037/5031	B B A	Side View (0-9) SSide View (0-9) End View (0-9)	170 170 170	170 170 170	3.5 3.5 3.5	3.0 3.0 3.0	1.5	50-120 50-120 50-120	.610	1.800 1.800 1.125	.750 .750 1.080	30	RTS-14 RTS-14 RTS-2	

STANDARD SOCKETS

TYPE S. High-dielectric molded bakelite body. Units are same as Type RS, but without mounting plate; mount with retainer ring supplied. All require 1-11/44'' keyed hole. Avg. shipping weight 5 oz.

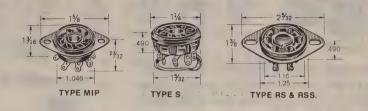
		Prongs	EACH					
Stock No.	Mfr's Type		1- 24	25- 49	50- 99	100- Up		
713-2926 7854 713-2930 7856		4 6	.38	.30 .36	.24	.22		
713-2934 713-2939	78S8 78S11	Octal 11	.36 .47	.28 .36	.22	.20		

TYPE RS. Have removable mounting plate. All of the units listed below mount in 1-1%4'' hole. Slotted mounting holes to fit centers from 1/2'' to 1%6''. Av. shpg. wt. 5 oz.

713-2910 713-2911 713-2914 713-2923	78RS4 78RS5 78RS8 78RS11	4 5 Octal	.41 .48 .48	.34 .38 .38	.28 .30 .30 .40	.25 .27 .27 .36
/13-2923	. 18H211 :	1 Vig. 1	00	.40	.40	.30

TYPE RSS. Ultra-low-loss steatite body. Excellent for use in high-frequency transmitting equipment. All are universal type; have removable mounting plate with slotted holes $1\frac{1}{2}$ " to $1\frac{1}{6}$ ". Mounting hole required, $1\frac{1}{4}$ ". Av. shpg. wt. 5 oz.

713-1311 713-1312	49RSS4 49RSS5	4	1.50 1.50	1.20	.88	.78
713-1316	49RSS8	Octal	1.42	1.13	.95	.85



TYPE MIP. Bakelite body with molded-in steel plate. *Require $1\frac{1}{4}$ " hole; mounting centers, $1-\frac{1}{4}$ "; other have $1\frac{1}{2}$ " mounting centers. §Requires $1-\frac{1}{2}$ " hole. ‡Mica-filled bakelite. Avg. shpg. wt. 2 oz.

			CH			
Stock Mfr's		Prongs	1-	25-	50-	100-
No. Type			24	49	99	Up
713-2800	77MIP4\$	4	.36	.28	.24	.22
713-2803	77MIP5\$	5	.45	.36	.30	.28
713-2805	77MIP6\$	6	.46	.36	.28	.26
713-2810	77MIP8\$	Octal	.36	.28	.24	.22
713-3700	88-8*	Octal	.39	.32	.27	.24
713-3703	88-8X*	Locatal	.60	.48	.40	.36
713-2809	77MIP8T§‡	Octal	.41	.33	.27	.25
713-2813	77MIP9§	9	.47	.38	.31	.29
713-2815	77MIP11 §	11	.43	.34	.24	.26
713-2816	77MIP11 T‡	11	.55	.49	.37	.33
713-2818	77MIP12 §	12	.56	.45	.38	.34
713-2821	77MIP20 §	20	.95	.77	.64	.58

A TOP-MOUNTING SOCKETS

Stock	Mfr's		1-	25-	50-	100-
No.	Type		24	49	99	Up
750-0900 750-0980 750-0981	9AB	§7-pin black bakelite §9-pin black bakelite §9-pin mica-filled bakelite	.23	.18 .18 .20	.13	.12

B BOTTOM-MOUNTING SOCKETS

750-0902	7EB	§7-pin mica-filled bakelite	.19	.14	.12	.11
750-0983	9EB	§7-pin mica-filled bakelite §9-pin black bakelite §9-pin mica-filled bakelite	.23	.18	.13	.12
/30-0984	SEIM	3 a-biu mica-ulled pakelite	.20	.20	.10	.13

(C) TOP-MOUNT SHIELD BASE SOCKETS ("J" Slot)

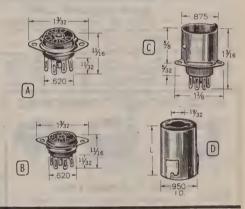
750-0941	7XB1	†7-pin black bakelite	.26	.20	.16	.15	
		†7-pin ceramic		.54			
750-0943	7XM1	†7-pin mica-filled bakelite	.35	.28	.19	.17	
750-0912	7JM-2	7-pin JAN/MIL*	.42	.32	.25	.21	
750-1014	9XB		.35	.28	.19	.17	
750-1015	9XC	§9-pin ceramic	.55	.44	.29	.25	
750-1016	9XM	§9-pin mica-filled bakelite	.35	.28	.19	.17	

MINIATURE TUBE SOCKETS, SHIELDS, BASES

7-pin sockets, shield bases mount on \(^{\mathscr{N}}_6\)" ctrs.; sockets require \(^{\mathscr{N}}_6\)" hole. 9-pin sockets, shield bases mount \(^{\mathscr{N}}_6\)" hole. Strap nuts are curved strips with 2 threaded holes that take place of 2 nuts in mounting miniature sockets. Diameter of rivet holes: \(^{\mathscr{N}}_1.125\)", \(^{\mathscr{N}}_0.98\)". \(^{\mathscr{N}}_1.125\)", \(^{\mathscr{N}}_1.098\)". \(^{\mathscr{N}}_1.125\)", \(^{\mathscr{N

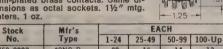
D TUBE SHIELDS ("J" Slot)

Stock No.	Mfr's Type	Description	1-24	25- 49	50- 99	100- Up
750-0923	7S3	1¾ " high, 7-pin	.35	.28	.18	.17
750-0924	7S4		.45	.35	.28	.26
750-1005	9S2		.42	.34	.25	.21
750-1006	9S3		.80	.64	.47	.38



NOVAR TUBE SOCKETS

Molded from *black bakelite (S-B) or †mica-filled bakelite (S-M). Have cadmium-plated brass contacts. Same dimensions as octal sockets. 1½" mtg. centers, 1 oz.





NUVISTOR 5-PIN TUBE SOCKETS

Subminiature 5-pin sockets designed for nuvistor tubes. Constructed of type MFE, low-loss phenolic insulation; saddle of cold rolled steel, cadmium-plated. Contacts are copper alloy cadmium-plated. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	Fig.	Mount	1- 24	25- 49		100- 249	
750-0878 750-0879	5NS-1 5NS-2	E	Screw PC	.40 .61	.32	.21 .35	.20	.16 .25

ATTENTION BUYERS

Make Allied your "One-Stop" headquarters for all your industrial needs. Pay OEM prices, slash handling expenses and reduce paperwork in purchasing and receiving. You place one order, receive one shipment and make one disbursement. Contact your nearest Allied Electronics facility for prices and delivery of larger quantity prices.

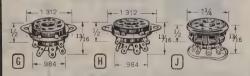


SADDLE OCTAL SOCKET

TYPE 168-015. Bakelite body with steel plate. For 1" dia. hole; %4" mtg. holes on 1%6" ctrs. Mounts from below chassis. Wt. 5 oz.

713-5588. 1-24 ... Each .47 25-49 ... Each .38 50-99 ... Each .31 100-Up ... Each .29

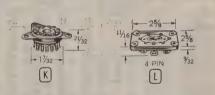
BAKELITE AND CERAMIC OCTAL SOCKETS



Saddle types have 4 ground lugs. Fig. G: $1\frac{1}{2}$ " cntrs, clinch-on steel saddle, $1\frac{1}{6}$ " d. Fig. H: $1\frac{1}{6}$ " cntrs, presson saddle, 1" d. Fig. J: $1\frac{1}{6}$ " d., have keyway and retaining ring 8RO. 8AP permits rivet mtg. of Fig. J types. Mtg. col. is rivet hole dia. or chassis thickness. 1 oz.

0. 1						EACH		
Stock No.	Mfr's Type	Fig.	Description	Mtg.	1-	10- 24	25- 49	50 Up
750-0955 750-0956 750-0950 750-0951	8EB 8EM 8AB 8AM	66 11 11	Black Mica-filled Black Mica-filled	.143" .143" .136" .136"	.22 .25 .23 .25	.18 .20 .18 .20	.13 .16 .13 .16	.12 .15 .12 .15
750-0965 750-0967	8R1 8R3	J	Black Mica-filled	1/18" 1/16"	.40 .53	.31	.22	.20
750-0971 750-0952	8RO 8AP		Retainer ring Adapter plate		.23	.14	.13	.12

TUBE SOCKETS



Glazed steatite bases, DC-200 treated. Contacts: .0005 silver-plated phosphor bronze with beryllium copper springs. Shells and shields are aluminum, Iridite treated. Fungus resistant cushion washers under contacts. Type 122-244: Steatite insulated 4 pin wafer. Long, parallel contacts designed to carry high currents. Type 122-275: six holes provide tube seal ventilation. For heavy current. Type 174-311: Continuous heat resistance to 500°F. Shgg. wts.: Types 122-244-001 and 122-275-001, ½ lb.; Type 124-311-100k, ¾ lb.

Stock	Mfr's				EACH							
No.	Type	Fig.	Pin	s Description	1- 9	10- 49	50- Up					
828-0427	122-244-001	L	4	Steatite. For super jumbo tubes. Type 8008 or rectifier with E.I.A. Base No's. A4-15, -16 and -18.		3.20	2.67					
828-0438	122-275-001	L	5	Steatite. For giant 5-pin base tubes. 4-125A, 4-250A, RK-48 with E.I.A. base.	5.38	4.30	3.58					
828-0494	124-311-100	K	11	Silicone base. For 8072, 8121, 8462, other UHF tubes	2.52	2.02	1.68					

Tube Sockets, Plugs and Test Adapters





VOLTAGE TEST TUBE-SOCKET ADAPTER KIT

TYPE T-7-M. Similar to T-7-M-C right but without current-

TYPE T-7-M. Similar to T-7-M-C right but without current-measuring feature. Fits 7-pin miniature socket, Tabs on adapter grip optional P-1 Probe, listed in table. Length, less prongs, 1.5". ½ oz.

TYPE T-8-0. Fits standard 8-pin octal tube clamps, Same specifications as T-7-M listed above. Shpg. wt., ¾ oz.

TYPE T-9-N. Fits into shield base for 9-pin miniature types. Same specifications as T-7-M listed above. ½ oz.

Ot and	886-1-	Shell	Shell	EACH			
Stock	Mfr's	Body	Skirt	1-	20-	100-	
No.	Type	Dia.	Dia.	19	99	Up	
977-0910	T-7-M	.75"	1.03"	3.30	2.64	2.20	
977-0914	T-8-0	1.25"	1.56"	3.48	2.78	2.32	
977-0916	T-9-N	.87"	1.16"	3.48	2.78	2.32	

T-789. All 3 adapters, and P-1 Probe. Plastic case, 6 oz. 977-0995. 1-19-Ea. 17.16 20-99-Ea. 14.30 100-Up-Ea. 12.26



OCTAL PLUG

Phenolic octal plug crimped into base. Can 2" square, 3" high. 5 oz.

Stock	Mfr's	EACH				
No.	Type	1-9	10-49	50-Up		
977-0218	C-12-K1.02	1.95	1.57	1.30		

ROUND PLUG-IN CANS

For hand-wired, printed and miniature transistorized modules. **G2.1-8-4**, 9-pin, **G2.2-8-4**, 7-pin. 2" long. 5 oz.

Stock	Mfr's	Dia.	EACH		
No.	Туре	In.	1-9	10-49	50-Up
977-0459	G2.1-8-4		4.05	3.24	2.70
977-0463	G2.2-8-4	5/8	4.00	3.20	2.67

For measurement from tube-side of chassis. Long test-tabs for easy connection. Types TVS are low-loss mica-filled moided phenolic per MIL-M-14 MFE. Types 1447, 1449 with captive or telescoping tube shields; 121/32" high. Insulation resistance, 500,000 megs; breakdown exceeds 1700 VAC or DC. Av. shpg. wt. 5 oz.

Stock No.	Mfr's Type	Fig.	Pins	Description	1- 24	25 Up
885-0195 885-0196 885-0197 885-0198	TVS-7 TVS-8 TVS-9 TVS-12	BBBB	7 8 9	Miniature Octal Miniature Compactron	3.37 3.75 3.52 4.42	2.03 2.25 2.12 2.66
885-0358 885-0369	1447 1449 :	A	7 9	Miniature Miniature	3.87 4.05	2.35 2.45

Stock	Mfr's	Dia.	EACH		
No.	Туре	In.	1-9	10-49	50-Up
977-0459	G2.1-8-4	3/4	4.05	3.24	2.70
977-0463	G2.2-8-4	5/8	4.00	3.20	2.67

MULTI-PURPOSE CONNECTORS



SERIES 78 CONNECTORS

Matching male-female protected terminals with unbreakable metal caps. Caps are screwdriver removable. Accepts cables up to %". PF, PM8: octal. PF9, PM9, PF11, PM11: octal style. Type PF and PM have small contacts. Av. shpg. wt., 3 oz.

			EACH				
Stock No.	Mfr's Type	Con- tacts	1- 24	25- 49	50- 99	100- Up	
713-2915	78-PF4	4	.63	.51	.41	.33	
713-2916	78-PF5	5	.78	.58	.50	.44	
713-2917	78-PF6	6	.71	.55	.48	.42	
713-2919	78-PF8	8	.71	.55	.48	.42	
713-2920	78-PF9	9	.78	.62	.50	.44	
713-2921	78-PF11	11	.82	.66	.53	.47	
713-3613	86-PM4	4	.78	.62	.53	.46	
713-3615	86-PM5	5	.78	.62	.53	.46	
713-3617	86-PM6	6	.81	. 64	.55	.48	
713-3621	86-PM8	6 8	.74	.59	.56	.48	
713-3623	86-PM9	9	.82	.66	.57	.49	
713-3625	86-PM11	11	.82	.66	.57	.49	

SERIES 86 STANDARD CP PLUGS

Bakelite CP type plugs ideal for use as chassis connectors, with plug-in units or as inexpensive cable connectors. Retainer ring mtg. Use adapter plate (below) for replacement. Come with mtg. ring for 11%4" holes. With guide post, aligning key. Ay. shpg. wt., 2 oz.

Stock	\$26-'-	Mfr's		EACH				
No. Type		Pin	1-24	25- 49	50- 99	100- Up		
713-3602 713-3603 713-3604 713-3605	86-CP4 86-CP5 86-CP6 86-CP7S	4 5 6 7-Small	.46 .46 .50	.36 .36 .37 .44	.29 .29 .32 .35	.26 .26 .28 .32		
713-3606 713-3610 713-3611	86-CP8† 86-CP11† 86-CP12†	Octal 11 12	.50 .51 .53	.37 .42 .42	.32 .33 .34	.28 .29 .31		

ADAPTER PLATE TYPE 12-001-03. Nickel plated steel, For all Type CP plugs above. 1½" to 1%" centers. Av. shpg. wt., 1 oz. 713-0085 Each .11

BREADBOARD SOCKETS



base with numbered connections.
Phosphor bronze spring contacts.
Standard center-to-center mtg. holes.
7- and 9-pin mount in center or on side, 8-pin mounts on side, 2 oz.

	*** **			EAC	H	
Stock No.	Mfr's Type	Desc.	1-9	10- 49	50- 99	100- Up
885-0201 885-0202 885-0203	XS-7 XS-8 XS-9	7-pin. min. 8-pin octal 9-pin min.	1.60 2.20 1.80	1.28 1.76 1.44	.90 .99 .81	.80 .94 .78

TERMINAL TURRETS



Simplify design and construction of electronic equipment and conserve chassis space. Type 8-12, 2" 1.; 10-12, 2½" 1. Bolt to chassis with 6-32 screw through .150" dia. hole. 3 oz.

Stock	Mfr's		EACH	
No.	Type	1-24	25-49	50-U
977-1116	8-12	1.23	.98	.82
977-1135	10-12	1.43	1.14	.95

TEST-SOCKET TUBE ADAPTERS





-126-T-789-C T-12-C T-9-R-C T-7-M-C. T-9-N-C CURRENT TEST SOCKET ADAPTERS

TYPE T-7-M-C. Measure tube current and voltage from tube side of equipment. Fits shield-base of 7-pin min. socket. Dual-contact test tabs on adapter break circuit when optional dual-contact probe (below) is inserted. Cap., approx. 1 pF. Flashover voltage, over 1500 VDC. Phenolic body, 1.47" long (less prongs). Shpg. wt., % oz.

TYPE T-9-N-C. Fits into shield base for 9-pin miniature types. Same specifications as T-7-M-C above. 34 oz. TYPE T-9-R-C. Fits 9-pin Novar socket. Lgth., 1.81". 2 oz. TYPE T-12-C. Fits 12-pin Compactron socket. Lgth., 1.81".

Stock Mfr's No. Type	Mifele	Mfr's Shell	Shell	EACH			
	Туре	Body Dia.	Skirt Dia.	1- 19	20- 99	100- Up	
977-0911 977-0919 977-0921 977-0935	T-7-M-C T-9-N-C T-9-R-C T-12-C	.74" .87" 1.26" 1.26"	1.03" 1.16" 1.56" 1.56"	5.53 5.90 5.75 7.05	4.42 4.72 4.60 5.64	3.68 3.90 3.83 4.70	
977-0637	P-2	Dual Si Plug-in		1.78	1.42	1.18	

CURRENT SOCKET ADAPTER KITS

T912C. T-12-C, T-9-R-C Adapters; P-2 Probe; plastic case,

6 oz. 977-0999. 1-19-Ea. 10.80 20-99-Ea. 9.31 100-Up-Ea. 8.15 T-789-C. T-7-M-C, T-8-O-C, T-9-N-C Adapters; P-2 Probe; plastic case. Shpg. wt. 6 oz. 977-0996. 1-19-Ea. 14.07 20-99-Ea. 12.08 100-Up-Ea. 10.55

ACS SOCKET-SHELL



STAND-OFF SOCKETS FOR PRINTED CIRCUITS

Stand-off sockets rest on shoulder of the contact tall-provide air gap for cooling and eliminating possibility of a moisture trap. Designed for $N_{6}^{\prime\prime}$ printed circuit boards having bottom circuitry. All are constructed of general-purpose black phenolic casting with hot tinned brass contacts. Av. shpg. wt. 1 oz.

TYPE 7PC-B1. For 7-pin miniature tubes. 750-0916, 1-9. Each .18 10-24. Each .13 25-49. Each .12 50-Up..., Each .11

TYPE 9PC-B1. For 9-pin miniature tubes. 750-0998. 1-9. Each .19 10-24. Each .16 25-49.... Each .15 50-Up.... Each .13

TYPE 20-PM PHOTOMULTIPLIER TUBE SOCKET



20-contact socket for RCA photomultiplier tubes. Accepts 6810, C7187A, C7122, 7265 or others with similar bases. Durable MAI-60 alkyd glass fibre base. Meets JETC 20-102. Shpg. wt. 2 oz. 750-1049. 1-9. . Each 9.25 10-24 . . . Each 7.40 25-49 Each 6.16 50-Up Each 5.13

DUODECAL CRT SOCKET



Mica-filled, phenolic socket has 12 prongs. Accepts 10BP4; 2BP1, 5TP4, etc.; RCA 6199. Meets JETEC B12-43 specs. Wt. 4 oz.

			EACH			
Stock No.	Mir's Type	Desc.	1-3	10- 24	25- 49	50- Up
750-0856	3M12	Socket	3.38	3.00	2.70	1.86

DIHEPTAL CRT SOCKET

Black bakelite or mica-filled 14-prong sockets. Accept 6217, 5819. Meets JEDEC B12-37. Less mounting ring. 5 oz.

						-
750-0841	3B14	Black ·	2.92	2.50	2.34	1.63
750-0857	3M14	Mica-filled	3.08	2.60	2.46	1.72
		Mtg. ring				
120-0000	0717 1	ivery. ring		سند		

ATTENTION PURCHASING AGENTS

Allied Electronics can supply most of your socket and connector requirements from large stocks on hand. You get fast, dependable service from our centrally-located warehouses. See page 3 for list of Allied Electronics regional offices from coast-to-coast.

	RESISTOR INDEX			
CARBON RESISTORS	Mallory of the best of the Section o	94	RESISTOR ASSORTMENT	
Stackpole 97	Sage	92	TRW/IRC	91
TRW/IRC 97	TRW/IRC	92	RESISTOR BIN LABELS	
CARBON FILM MIN. RESISTORS	METAL FILM RESISTORS		Allied	. 91
Allied 97	TRC/IRC 3da 18 . 1 . a bb rb nb pa . a a g	90	WIREWOUND POWER RESISTORS	
FIXED POWER RESISTORS	METAL GLAZE RESISTORS		Clarostat	. 93
Clarostat			Mallory	

ALLIED 5% CARBON FILM MINIATURE RESISTORS BELOW 10% CARBON PRICES

Extremely low noise. Have Venetian red coating with color code marking.

TEMPERATURE CHARACTERISTIC (PPM/°C)

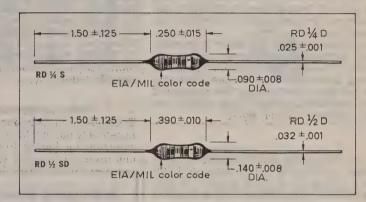
Type	+0-500	+7-700	+0-1000	+0-1700	Test Method
RD 1/4 S	Under 100 kOhm	100 kOhm -200 kOhm	220 kOhm -390 kOhm	Over 390 kOhm	EIA RS-
RD ½ SD	Under 100 kOhm	100 k0hm -1 M0hm	1 MOhm -2.2 MOhm	Over 2.2 MOhm	196-A 5,2,4

NOISE CHARACTERISTIC (µV/V)

Type	0.1	0.3	0.6	- 1.0
RD1/4 S	Under 10 kOhm		100 kOhm-1.5 MOhm	1.5 MOhm-over
RD1/2 SD	Under 10 kOhm		300 kOhm-5.1 MOhm	5.1 MOhm-over

PRICES

Stock	Mil		Values		E	ACH	
No.	Equiv.	Watts	See Table Below	10- 99	100- 999	1000- 2499	2500- Up
525-1XXX 525-2XXX	RD 1/4 S RD 1/2 SD	1/4	10 Ohms to 820 Kilohms 10 Ohms to 820 Kilohms	.10	.06 .06	.04	.03



RCR CARBON RESISTORS TO MIL-R-39008A SPECIFICATIONS

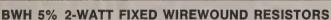
- Documented Reliability Beyond that Offered with MIL-R-11-at No Extra Cost
- Factory Fresh-No Obsolescence
- Foil Pack for Moisture Protection

±.001 DIA

RCR07

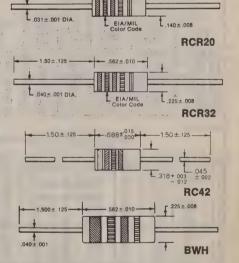
		5%	TOLERANC	E	
ALL	VALUES	WITHIN	SPECIFIED	RANGE	AVAILABLE

Stock	MIL		Values	1 2 2		EACH	
No.	Equiv.	Watts	See Table Below	. 10-99	100-499	500-999	1000-Up
824-1XXX 824-3XXX 824-5XXX 720-7XXX	RCR07 RCR20 RCR32 RC42	1 2	2.7 Ohms to 22 Megohms 2.7 Ohms to 22 Megohms 10 Ohms to 22 Megohms 10 Ohms to 22 Megohms	.13 .13 .15 .27	.08 .08 .11 .23	.07 .07 .10 .20	.06 .06 .09 .17



SPECIFY VALUES	WANTED-TO	2400 OHMS (DNLY
----------------	-----------	-------------	------

Stock	Mfr's	MIL	10/	Values	EACH							
No.	Type	Equiv.	Watts	See Table Above	10-99	100-249	250-499	500-Up				
823-1XXX	BWH		2	0.10 Ohms to 9.1 Ohms	.51	.31	.20	.16				
823-1XXX	BWH		2	10 Ohms to 1500 Ohms	.32	.20	.14	.10				
823-1XXX	BWH		2	1600 Ohms to 2400 Ohms	.46	.28	.19	.14				



DIMENSIONS

Mfr's Type	Dja.		Dia. Lead (In.)	Lead (in.)
RD 1/4 S RD 1/2 SD	$.090 \pm .008$ $.138 \pm .007$	$.250 \pm .031 \\ .390 \pm .025$.025 .032	1½±% 1½±%

Mil	Watts	Dia. (In.)	Lgth. (In.)	Wire AWG	Dia. Lead (In.)	Lead (in.)
RCR07 RCR20			.250±.031 .390±.025		.025 .032	1½±% 1½±%

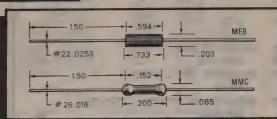
Mil Type Watts	Dia. (In.)	Lgth. (In.)	Wire AWG	Dia. Lead (In.)	Lead (In.)
		.562±.030 .688±.030			1½±1/8 1½±1/8

STANDARD RESISTANCE VALUES

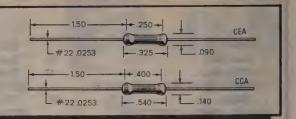
TO COMPLETE ALLIED STOCK NO., INSERT 3 DIGIT NO. SHOWN IN XXX COLUMN AFTER VALUE DESIRED, IN PLACE OF XXX IN STOCK NO.

Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Uhms	XXX	Uhms	XXX	Unms	XXX	Unms	XXX	Unms	XXX	Megs	XXX	Megs	XXX
.10	001	.47	019	2.2	039	10	060	47	.153	220	248	1000	356	4700	461	22k	585	100k	717	470k	825	2.0	905	9.1	923
.11	002	.51	021	2.4	040	11	064	51	160	240	255	1100	361	5100	467	24k	592	110k	722	510k	830	2.2	907	10.0	924
12	003	.56	022	2.7	041	12	068	56	166	270	263	1200	366	5600	473	27k	603	120k	727	560k	836	2.4	908	11.0	926
.13	004	.62	023	3.0	042	13	073	62	.173	300	270	1300	372	6200	482	30k	811	130k	732	620k	844	2.7	909	12.0	927
.15	005	.68	024	3.3	043	15	081	68	178	330	276	1500	380	6800	489	33k	.617	150k	740	680k	850	3.0	911	13.0	928
.16	006	.75	026	3.6	045	16	084	75	185	360	283	1600	383	7500	498	36k	630	160k	743	750k	856	3.3	912	15.0	929
.18	007	.82	027	3.9	046	18	092	82	190	390	288	1800	393	8200	504	39k	636	180k	751	820k	861	3.6	913	16.0	931
.20	008	.91	028	4.3	048	20	098	91	197	430	296	2000	400	9100	514	43k	642	200k	759	910K	871	3.9	914	18.0	933
.22	009	1.0	029	4.7	049	22	102	100	202	470	302	2200	405	19k	522	47k	650	220k	765	Megs		4.3	915	20.0	935
.24	011	1.1	031	5.1	051	24	108	110	206	510	308	2400	412	11k	528	51k	657	240k	775	1.0	877	4.7	916	22.0	937
.27	012	1.2	032	5.6	053	27	117	120	212	560	315	2700	421	12k	533	56k	666	270k	783	1.1	881	5.1	917		
.30	013	1.3	033	6.2	054	30	123	130	218	620	324	3000	427	13k	538	62k	677	300k	790	1.2	886	5.6	918		
.33	014	1.5	034	6.8	055	33	130	150	226	680	330	3300	433	15k	550	68k	685	330k	796	1.3	890	6.2	919		
.36	016	1.6	036	7.5	056	36	136	160	230	750	338	3600	441	16k	555	75k	694	360k	805	1.5	900	6.8	920		
.39	017	1.8	037	8.2	057	39	140	180	237	820	343	3900	446	18k	565	82k	703	390k	811	1.6	901	7.5	921		
.43	018	2.0	038	9.1	058	43	147	200	243	910	351	4300	453	20k	575	91k	712	430k	817	1.8	903	8.2	922		

MIL-R-10509 Metal Film Resistors



- For Precision Instrumentation
- Offer Low Electrical Noise
- . High Stability Under Load
- Precise Tolerances and Temperature Coefficients
- Minimum Order, 10 Pieces



APPLICATIONS

Particularly suited for applications requiring low electrical noise, stability under load, precise temperature coefficients and tolerances, uniform performance and repeatability.

Applications include: precision instrumentation; computer peripherals and mainframes; missile and aircraft systems; sensing and measuring devices. Matching of temperature coefficients, tolerances and ratios available between pairs of sets, between different values, styles.

VOLTAGE COEFFICIENT

Voltage coefficient when measured between 1/10 and full rated voltage is typically less than 0.5 parts per million per volt for all values. On low and medium values, voltage coefficient is essentially zero.

ELECTRIC NOISE

Metal Film resistors have low noise levels due to minute size of particles which comprise the film. Average 0.10 μV per volt (-20 dB) over standard resistance ranges for a decade of frequency, with low and intermediate values below 0.05 μV per volt (-30 dB). New techniques permit further high range improvement; available on special order only.

FREQUENCY RESPONSE

Excellent high frequency response that is essentially flat to 5 MHz. Non-Helixed units available for higher frequencies, on special order from Allied Electronics.

TEMPERATURE COEFFICIENTS

High-stability evaporated metal film resistors available in two temperature tolerances. Others on special order.

	MIL-R- 10509 Char.	IRC T.C. Code	Temperature Coefficient †	Temperature Range
	D	TO	0 ± 100PPM/°C	-55° to +165°C
_	С	T2	0 ± 50PPM/°C	-55° to +175°C

†Indicates parts per million per degree centrigrade (100 PPM equals 0.01%.) T.C. code marking is combined with the code for date of manufacture.

MINIMUM ORDER, 10 PIECES

ORDERING INFORMATION

At our option, we will ship the T2 resistor (50PPM/°C) in place of the T0 resistor (100PPM/°C) at the same price. See table below for resistance values. Standard resistance values not shown are available on special order.

0				IRC	Resistance		. Wa			Voits				ximum	25.15.2.2	11 12	·· EA	СН	
Stock No.	Mfr's	MIL	Mil Char.	T.C.	Range,	at 71	0° C	at 1	25° C	MIL	Body		Size	, Inches		10-	25-	100-	250-
NO.	Type	Style	Char.	Code	Ohms	IRC	MIL	IRC	MIL	Max.	Style	L	D	CL	AWG	24	99	249	Up
832-6XXX	MMC	RN50	C	T2	49.9-100k	1/2.	1/8	1/4	1/20	200	C	.172	.075	-200	#26*	2.00	1.00	.48	.39
831-5XXX 831-6XXX	TO-55 CEA	RN55	D	TO T2	10-499k 30.1-499k	1/2	1/s 1/s	1/4 1/4	1/10 1/10	200	С	.281	.100	.325	#22 (.025)	1.34	1.00	.21	.14
831-1XXX 831-2XXX	TO-60 CCA	RN60	D	TO T2	10-1 meg 30.1-1 meg	1/2	1/4 1/4	1/4 1/4	. ½ ½	250	С	.431	.160	.540	#22 (.025)	1.34 2.00	.67 1.00	.21 .31	.14
832-3XXX 832-4XXX	MEB	RN65	D C	TO T2	10-1 meg 49.9-1 meg	1	1/2	1/2	1/4	300	- M	.609	.218	.733	#22 (.025)	2.12	1.00	.24	16

^{*}Lead lengths, 1"

MIL-R-10509 METAL FILM RESISTANCE VALUES

To complete Allied Stock Number, insert numeric code (XXX—shown to right of ohms value) in place of XXX in Stock Number.

									01010110	0 141190	101 000	ii cypo ii	0110441	in labi	Cabose	· .							
Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
10.0 10.5 10.5 11.0 11.3 11.5 11.8 12.4 12.4 12.7 13.3 14.7 15.4 16.5 16.5 16.5 17.4 17.8 18.7 19.6 20.5 21.5 22.1 22.1 22.1 22.1 22.1 22.1 22	060 061 062 063 064 065 066 067 071 072 073 074 077 078 081 082 083 086 087 088 089 099 100 101 103 104 106 107 107 107 107 107 107 107 107 107 107	27.4 28.7 29.4 30.9 31.6 32.4 33.2.4 34.0 34.8 35.7 36.5 40.2 41.2 42.2 43.2 44.3 46.4 51.1 52.6 60.4 61.4 64.9 66.1 66.1	118 1120 1121 1125 1126 1127 1128 1131 1132 1133 1137 1137 1143 1143 1143 1151 1152 1163 1167 1161 1167 1177 1176 1177 1177	75.0 76.87 80.65 84.5 84.5 84.5 88.7 93.1 105 105 105 1105 1105 1130 1131 1130 1131 1130 1131 1143 1154 1154 1154 1154 1154 1154	185: 186: 188: 189: 199: 199: 199: 199: 199: 199	205 210 215 2215 2215 222 232 233 243 249 255 261 267 274 280 287 287 287 316 324 331 340 348 357 357 367 374 475 487 489 499 412 422 432 442 442 442 445 489 489 511 523 549 549 549 549 549 549 549 549 549 549	245 247 250 251 251 252 260 261 262 265 267 262 265 267 271 272 278 280 281 277 278 280 281 277 278 280 281 277 278 280 281 277 278 280 281 281 281 281 281 281 281 281 281 281	562 576 590 604 619 634 649 665 681 715 750 825 745 825 845 847 909 931 957 1020 1050 1050 1150 1	316 317 317 322 323 323 327 328 331 333 335 336 338 340 342 345 346 346 355 355 356 356 366 367 368 371 375 376 377 377 377 377 377 377 377 377 377	1540 1580 1620 1650 1740 1780 1870 1870 2000 2050 2150 22100 22150 22150 22150 22150 22150 22150 22160 2370 2490 2490 26170 2870 2870 2870 2870 2870 2870 2870 28	381 382 385 385 386 390 397 398 400 401 402 403 408 410 411 413 415 420 422 423 425 426 427 428 431 431 435 436 437 440 443 4440 443 445 450	4320 4420 44530 4640 54750 4870 5110 5230 5760 5760 6840 6340 6340 6490 7150 77300 77300 77500 7	455 458 460 463 468 468 477 477 477 477 477 477 477 477 477 47	11.8k 12.1k 12.1k 12.1k 12.7k 13.7k 13.7k 13.7k 14.3k 14.3k 14.7k 15.k 15.8k 16.5k 16.5k 16.5k 16.9k 17.8k 19.1k 20.5k 21.k 21.5k 21.k 22.6k 21.k 22.6k 23.7k 24.3k 24.9k 25.5k 24.9k 25.5k 28.7k 28.7k 29.4k 28.7k 29.4k 29.4k 20.1k	5325 5336 5336 5336 5340 55445 5545 5557 5557 5557 5566 557 557 5580 5580 5580 5580 5580 600 600 600 600 600 600 600 600 600 6	32.4k 33.2k 34.k 34.8k 35.5k 36.5k 37.4k 40.2k 41.2k 42.2k 43.2k 44.2k 44.2k 43.2k 44.2k 44.2k 45.3k 46.4k 47.5k 48.7k 45.3k 46.4k 47.5k 68.1k 67.5k 68.1k 67.5k 68.1k 67.5k 68.1k 67.5k 68.5k 6	618 619 621 635 632 635 637 638 640 643 655 656 662 662 664 662 666 662 667 669 670 673 681 696 698 701 706 698	88.7k 90.9k 93.1k 95.31k 95.31k 97.6k 100k 102k 105k 110k 113k 1116k 118k 121k 121k 124k 127k 130k 133k 147k 140k 143k 147k 140k 147k 140k 147k 140k 147k 140k 147k 150k 147k 140k 147k 150k 147k 150k 165k 165k 169k 169k 169k 169k 169k 169k 169k 169	710 711 713 715 716 717 719 720 721 722 723 725 726 728 729 731 732 733 735 736 737 740 741 745 746 747 748 750 760 761 761 761	243k 243k 243k 245k 267k 267k 275k 280k 287k 274k 301k 309k 316k 324k 332k 432k 412k 422k 422k 432k 442k 453k 464k 454k 4556k 518k 556k 549k 614k 614k	776 777 780 781 782 784 786 787 787 788 791 792 795 797 797 800 8013 806 808 810 8114 815 816 818 822 824 831 832 833 835 838 837 838 834 840 842 843	665k 681k 715k 752k 750k 768k 825k 845k 825k 845k 8931k 953k 1.00M	848 851 852 854 855 856 867 869 864 865 867 867 877

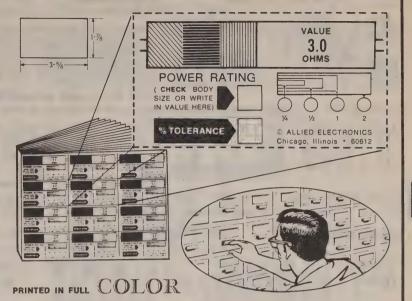
ALLIED PRE-PRINTED, FULL-COLOR RESISTOR BIN LABELS

TIME-SAVING, TROUBLE-SAVING BIN LABELS

- Ideal Wherever Resistors are Stored and Used
- Package Contains 167 Values from 2,7 Ohms to 22 Megohms
- 16 Sheets per Package—Each Sheet has 16 Tags
- Each Tag is Color Coded and Shows Ohm Value

Bin labels can be one of your biggest time-saving, trouble-saving ideas—and they're from Allied Electronics! It's positively "fool-proof" labeling for all applications by distributors, technicians and for production line assembly—anywhere resistors are stored or in constant use. Also the ideal tool for radio and TV service centers, hi-fi repair shops, etc. Each tag has the correct resistor color codes and the values in ohms shown in numerical figures.

Each package contains 167 ohm values—from 2.7 ohms all the way up to 22 megohms. Locate any resistor at a glance with separate color-coding and ohm value printed out for quick identification. Packaged 16 sheets to the set—each sheet with 16 tags, perforated and with gummed back. Tags may be either taped or stapled to your compartments or bins to meet individual requirements. Shpg. wt. 10 oz.



RESISTOR ASSORTMENT 3A

Balanced assortment of 120 10% tolerance molded wire-wound and fixed composition resistors. Compact size comparable to ½ W and 1 W sizes, yet rated 2 W at 70°C ambient temp. Contains: 7 each: 8200, 10K, 22K, 47K; 5 each: 1000, 6800, 15K, 100K; 4 each: 100, 330, 470, 1500, 2200, 3300, 4700, 27K, 1.0 meg; 3 each: 47, 82, 150, 220, 270, 3900, 220K, 470K; 2 each: 4.7, 10, 22, 68; 1 each: 15, 27, 33, 39. With metal Resisto-O-Cabinet. Wt. 4½ lb. 961-0100....... Each 33.68 5-Up...... Each 28.80

RESISTOR ASSORTMENT 4A

RESISTOR ASSORTMENT 5A

Contains extensive stock of 10% tolerance fixed carbon composition resistors rated 1 wait at 70°C ambient temperature. Voltage rating: 500 V, 1½" solder leads. 125 resistance values: 7 each: 1000, 10K, 27K, 47K, 100K, 270K, 470K, 1.0 meg; 5 each: 2200, 4700, 22K; 4 each: 33K, 39K, 68K; 3 each: 47, 100, 150, 220, 270, 470, 1500, 2700, 3300, 15K, 150K, 220K, 2.2 meg, 4.7 meg. Includes Resist-O-Cabinet. Ship. wt. 4¾ lb. 961-0102. Each 26.30 5-Up. Each 22.50

METAL RESISTO-O-CABINETS

Sturdy metal Resist-O-Cabinets (illustrated at right) are free with purchase of any balanced resistor assortment. Four non-spill drawers and 28 compartments. Overall: 5% x 51% x 10% ". Durable blue and silver finish.

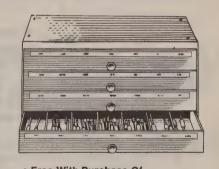
RESISTOR ASSORTMENT 6A

Contains 139 precision deposited carbon film and 10% tolerance insulated resistors rated ½ W, 1 W, and 2 W. ½ watt. 44 ea.: 100, 47K, 100K, 270K, 470K, 1.0 meg; 3 ea.: 4700, 10K, 220K, 2.2 meg; 2 each: 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 3300, 15K, 22K, 27K, 33K, 39K, 68K, 150K, 4.7 meg, 1 watt. 4 each: 1000, 10K, 27K, 100K, 10. meg; 3 each: 47K, 470K, 2.2 meg; 2 each: 3300, 15K, 22K, 68K, 150K, 270K; 1 each: 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 4700, 33K, 39K, 220K, 4.7 meg. 2 watt. 1 each: 47, 100, 470, 4700, 10K, 22K, 47K, Type DCF resistors. Offer 1 % tolerance, rated 1 watt at 40°C ambient temperature. 1 each: 1000, 10K, 100K, 1.0 meg and 5.0 meg. Complete with Resisto-O-Cabinet. 961-0103. 5 lbs......Each 27.14 5-Up.....23.22

RESISTOR ASSORTMENT 7A

Contains balanced inventory of 150 10% tolerance fixed carbon composition resistors rated ¼-watt at 70°C ambient temperature. Voltage rating: 250 V. 1½" solder leads. Resistances as follows: 10 each: 1000, 4700, 10K; 8 each: 2200, 22K, 100K; 6 each: 100, 470, 1500, 6800, 15K, 33K, 47K; 5 each: 3300, 1.0 meg; 4 each: 150, 220, 2700, 3900, 18K; 3 each: 47, 270, 680, 27K, 39K, 68K, 220K, 470K. With metal Resist-O-Cabinet. Shpg. wt. 4¼ lbs. 961-0104. Each 22.80 5-Up Each 19.50

METAL "RESIST-O-CABINET"



- Free With Purchase Of Resistor Assortment
- Four Non-Spill Drawers
- Twenty-eight Compartments

STABILITY, RELIABILITY, LONGER LIFE MOLDED METAL-GLAZE 2% TOLERANCE RESISTORS

Molded Metal-Glaze precision resistors provide stability, reliability, longer load life. Metal Glaze film is up to 100 times thicker than conventional resistor films. Tough, uniform molded body is extremely rugged, resists solvents, mechanical abuse of automatic handling equipment. Offer excellent temperature coefficients across a wide resistance range. Load life stability is four times better than MiL allowance. Average resistance changes less than 0.6% after 1000 hours, full load at 70°C. Derated at 0 to 150°. Average wt. per 100 6 oz. Additional data at left and below. MINIMUM ORDER 10 PIECES.

2%-TOLERANCE RESISTORS

Stoc		Mfr's Type	Watts		ock Valu Code Be	162	10-49	50-99	EACH 100-	240 26	i0-Up
				-							-
963-5		RL07	1 1/4		hms to 1		.27	.22	.1		.15
963-77	XXX	RL20	1/2	51 0	hms to 1	50k	.25	.20	.1	6	.13
Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX
51	160	200	243	750	338	3300	433	12K	533	47K	650
56	166	220	. 248	820	343	3600	441	13K	538	51K	657
62	173	240	255	910	351	3900	446	15K	550	56K	666
68	178	270	263	1000	356	4300	453	16K	555	62K	677
75	185	300	270	1100	361	4700	461	18K	565	68K	685
82	190	330	276	1200	366	5100	467	20K	575	75K	694
91	197	360	283	1300	372	5600	473	22K	585	82K	703
100	202	390	288	1500	380	6200	482	24K	592	91 K	712
110	206	430	296	1600	383	6800	489	27K	603	100K	717
120	212	470	302	1800	393	7500	498	30K	611	110K	722
130	218	510	308	2000	400	8200	504	33K	617	120K	727
150	226	560	315	2400	412	9100	514	36K	630	130K	732
160	230	620	224	2700	421	10K	622	30K	836	150K	740

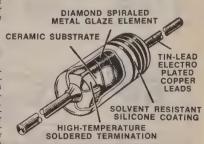
180 237 680 330 3000 427 11K 528 43K 642

MOLDED METAL-GLAZE PRECISION RESISTORS

These TRW Metal Glaze resistors are composed of a unique diamond-spiraled, thick film resistance element made up of glass and special metal alloys. They resist temperature, moisture, shock and vibration. Glass and metal alloy withstands overloads. Tin-lead, electroplated copper leads. Resistors meet or exceed all military requirements of MIL-R-22684. Their performance is better than MIL-R-39008A resistors.

Resistance Values in Ohm Table at left

Note: To complete Allied Stock number, insert numeric code (under XXX) shown opposite ohm value in place of XXX in stock number.



- Extremely Durable Uniform Molded Body
- Impervious to Environmental Extremes

ATTENTION BUYERS

For fastest service, contact your nearest Allied sales office.

Power Resistors for Industry

1%-TYPE AS-2 2-WATT (1/2x1/4")

	Val. Avail. in	EACH							
Stock	Ohms. See	1-	50-	500-	1000-				
No.	Table Below	49	499	999	Up				
962-4XXX	1, 2, 3, 3, 3, 5, 1, 9, 1, 10, 20, 22, 30, 51, 75, 91, 100, 120, 150, 200, 240, 270, 300, 360, 510, 1k	1.08	.86	.65	.57				
962-4XXX	1.5k, 2k, 3k	1.20	.96	.73	.61				
962-4XXX	5.1k, 6.8k, 10k	1.28	1.02	.78	.66				
962-4550	15k	1.30	1.01	.80	.68				
962-4575	20k	1.35	1.08	.83	.72				

TYPE AS 1% TOLERANCE, 2-WATT AND 5 WATT POWER RESISTORS

Miniature wirewound resistors with "Thermocoat" solvent-resistant silicone coating offering high dielectric strength and heat capabilities. Carry full power even at 215°C ambients, expanding significantly circuit design limits. Welded connections. Meet MIL V (MIL-R-26E). Temperature coefficient less than 20 ppm/°C. Maximum working voltages: AS-2, 150 V; AS-5A, 400 V. Shpg. wt.

	Val. Avail. in		EAC	H	
Stock No.	Ohms. See Table Below	1- 49	50- 499	500- 999	1000- Up
962-6XXX 962-6522	1, 2, 3, 10, 82, 100, 150, 1k 10k	1.13	.90 1.06	.69 .81	.59
962-6550 962-6575	15k 20k	1.35	1.08	.83	.70

1%-TYPE AS-5A 5-WATT (15/6X1/2")

TYPE AS VALUES AVAILABLE FROM STOCK

Complete the Stock No. by placing numeric code (XXX) shown opposite value in place of XXX in Stock No. above. Values shown in Bold Face available in both 2 and 5 watt types.

Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
1.0 2.0 3.0 3.3	029 038 042 043	5.1 9.1 10 20	051 058 060 098	22 30 51 75	102 123 160 185	82 91 100	190 197 202	120 150 200	212 226 243	240 270 300	255 263 270	360 510 1K	283 308 356	1.5K 2K 3K	380 400 427	5.1 K 6.8 K 10 K	467 489 522	15K 20K 51 K	550 575 657

TYPES PW-5 5-WATT AND PW-10 10-WATT RESISTORS

Compact, axial-lead resistors. Precisely wound element has glass fiber core and is sealed in rectangular ceramic case. Tolerance, ±10%. Power ratings, 25°C ambient. 11/2" leads. Av. shpg. wt. 2 oz. Ordering Information: complete the Allied Stock No.,

shown in tables left/right, by placing the numeric code (XXX) listed opposite value in chart below in place of the XXX in the Allied Stock No.; e.g., 962-8029 = Type PW-5 5-watt resistor at 1 ohm.

11FE FW-5 5-	8		3	5	
			EA	CH	
Stock No.	Val. Avail. in Ohms. See Table Below	1-	50- 499	500- 999	1000- Up
962-8XXX	1, 2, 3, 4, 5, 7.5, 10, 15, 25, 30, 50, 100, 120, 150, 200, 250, 300, 350, 500, 700, 800, 1k, 1.5k, 1.75k, 2k, 2.25k, 2.5k, 3k, 4k, 5k	.55	.36	.27	.15

		1.00			
			EA	CH	
Stock No.	Val. Avail. in Ohms. See Table Below	1- 49	50- 499	500- 999	1000- Up
962-9XXX	1, 2, 4, 5, 7.5, 10, 15, 20, 25, 30, 50, 75, 100, 150, 200, 250, 300, 500, 600, 750, 1k, 1.5k, 2k, 3k, 3.5k, 5k, 6k, 10k, 12k, 20k, 25k	.60	.39	.30	.19

TYPE PW VALUES AVAILABLE FROM STOCK

Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
1	029	5	050	20	098	75	185	200	243	500	307	800	341	2k	400	3.5K	438	10K	522
2	038	7.5	056	25	112	100	202	250	258	600	321	1K	356	2.25K	407	4K	448	12K	533
3	042	10	060	30	123	120	212	300	270	700	334	1.5K	380	2.5K	416	5K	466	20K	575
4	047	15	081	50	158	150	226	350	281	750	338	1.75K	391	3K	427	6K	478	25K	596

MIL-R-26E 1% MINIATURE POWER RESISTORS





TYPE PW-10 10-WATT (1% x% x1/32")

			EA	CH	
Stock · No.	Values (Ω) See Table Below	1-	10- 24	25- 49	50- Up
767-89XX	1, 2, 5, 10, 15, 20, 50, 60, 100, 150, 200, 250, 500, 600, 800, 1k	1.25	1.00	.77	.67
767-89XX 767-8980 767-89XX	3k, 5k 10k 15k, 20k	1.38 1.38 1.58	1.10 1.10 1.26	.84 .84 .97	.73 .73 .84

1%-RS-2B/1200S (3 WATT) RW-79

MIL-R-18546D SERIES RH 1% POWER RESISTORS

WATTAGE RATING

MIL	MIL	Watts	MIL	MIL	Vatts
Style	Free Air	Chassis	Style	Free Air	Chassis
RE60	3	5	RE70	8	20
RE65	6	10	RE75	10	30

Non-inductive available-Sage NM prefix; Dale NH.

Gold or black anodized aluminum housed resistors. Screw-mount directly to chassis. Welded construction, terminal to terminal. Meet Mil-R-18546D. 1% tolerance. Available in .05% -5% tolerance on special order. Per 100, 3¼ lbs. Specs. below: Initial resistance tolerance, ±.0030% per °C (30 ppm) per 2000 ohms up; +.0050% per °C (50 ppm) for values under 2000 ohms.

RE65 EXPLANATION

1. Style-Fixed wirewound. 2. Characteristic—G, Inductive winding; 275°C maximum continuous operating. Characteristic—N, non-inductive; 275°C maximum continuous operating. 3. Resistance Value—First three digits are significant, last digit represents number of zeros to follow, unless an "R" is in series which represent a decimal point and all numbers represent significant digits.

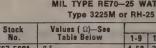


MIL TYPE RE60-7.5 WATTS

Type 3105M or Type RH-5

Stock	Values (Ω)—See		E	ACH	
No.	Table Below	1-9	10-24	25-49	50-Up
767-51XX 767-5173	1, 2, 5, 10, 25, 100, 1k 5k	3.05 3.30	2.44 2.64	1.86	1.62 1.75





No.	Table Below	1-9	10-24	25-49	50-Up
767-560 767-56X		4.58	3.66	2.80	2.43
767-567 767-568	400, 500, 600, 1k 3 5k	3.05 3.30 3.60	2.64	1.86 2.02 2.20	1.62 1.75 1.92



Stock	Values (Ω)—See		E	ACH	
No.	Table Below	1-9	10-24	25-49	50-Up
767-53XX	1, 2, 3, 4, 5, 6, 10, 15, 20, 25, 50, 100, 150, 200, 1k	3.05	2.44	1.86	1.62



MIL TYPE RE75-50 WATTS Type 3550M or RH-50

767-5801 767-58XX 767-58XX	0.5 1, 2, 3, 4, 5, 6 8, 10, 15, 20, 25, 30, 50, 100, 150, 200, 500, 1k	5.08 4.50	4.06 3.60	3.11 2.75	2.70 2.40
	50, 100, 150, 200, 500, 1k	3.80	3.04	2.33	2.82

MIL-R-26E AND MIL-R-18546D VALUES AVAILABLE FROM STOCK. Complete Stock No. by substituting code (XX) in Stock No. Values in Bold Face available in both MIL types.

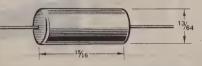
Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX
0.5 1 2 2.5	01 02 04 05	3 4 5 6	06 07 09 10	7.5 8 10 15	11 12 13 15	20 25 30 35	16 17 18 19	40 50 60 75	20 22 23 25	100 150 200 250	29 31 34 37	300 400 500	40 43 46	600 750 800	48 51 52	1 K 3 K 5 K	54 69 73	10K 15K 20	80 84 86K

STYLE VC-3D/3AE **31/4 WATT**



Stock	Stock Values (Ohms)		EACH						
No.	See Table "A" Below	1-9	10-49	50-99	100-Up				
880-4XXX	1, 1.5, 2, 3, 4, 5, 10, 15, 20, 22, 25, 33, 47, 50, 56, 75, 82, 100, 120, 150, 180, 200, 220, 270, 300, 330, 390, 400, 470, 500, 560, 600, 680, 750, 800, 900, 1k	.73	.62	.51	.40				
880-4XXX 880-4XXX	1.2k, 1.5k, 2k, 2.2k, 2.5k, 3k, 3.3k, 4k, 5k 5.6k, 6.8k, 10k	.79	.67 .69	.56 .57	.44 .45				

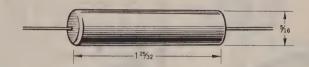
STYLE VC-5E/5AE 5 WATT



Stock	Stock Values (Ohms)	EACH							
No.	See Table "A" Below	1-9	10-49	50-99	100-U				
880-5XXX	1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 22, 25, 27, 30, 33, 46, 47, 50, 68, 75, 82, 100, 120, 150, 200, 220, 250, 270, 300, 330, 350, 400, 470, 500, 680, 750, 1k	.79	.67	.56	.44				
880-5XXX 880-5XXX 880-5XXX 880-5467	1.2k, 1.5k, 2k, 2.2k, 2.5k, 2.7k, 3k, 3.3k, 4k, 4.7k, 5k 7.5k, 8k, 10k 15k, 18k, 20k 22k, 25k	.81 .90 .98	.70 .76 .83	.57 .63 .68	.45 .49 .55				

These wirewound resistors feature molded vitreous enamel coating for excellent insulation characteristics and heat dissipation. Uniform size—mount in metal clips for heat-sink effect allowing up to 100% wattage increase. Uniform insulation thickness for 1000 VAC breakdown rating, identifying markings are fired right onto coating for sure identification. Consistent size and shape make them ideal for automated assembly. Resistors will withstand high humidity and immersion in salt solution. 1½" tinned leads. Tolerance is ±5%. Meets MIL-R-26 requirements for RW57, RW58, RW59, RW77, RW68, RW69. Units have 1½" leads. Av. wt. per 25, 4 oz.

STYLE VC-10F/10AE-11 WATT



Stock	Stock Values (Ohms)	EACH							
No.	See Table "A" Below	1-9	10-49	50-99	100-Up				
880-6XXX	1, 2, 3, 4, 5, 10, 15, 20, 25, 50, 56, 100, 150, 200, 250, 300, 400, 500, 600, 750, 1k	.85	.72	.59	.46				
880-6XXX 880-6XXX	1.5k, 2k, 2.7k, 4k, 5k 7.5k, 10k	.95 1.07	.81 .91	.66 .74	.52 .59				
880-6444 880-6467 880-6XXX	15k 25k 47k, 50k	1.18 1.23 1.39	1.01 1.05 1.19	.82 .87 .97	.65 .67 .77				

DELIVERY NOTE FOR RESISTORS ON THIS PAGE: TO SERVICE OUR CUSTOMERS BETTER, BECAUSE OF TOUGH DELIVERIES, WE WILL SHIP IDENTICAL PARTS FROM ONE OF THREE SOURCES.

WIREWOUND RESISTORS











STYLE HLW-5-51/4 WATT

Stock	Stock Values (Ohms)		EACH							
No.	See Table "A" Below	1-9	10-49	50-99	100-Up					
767-1XXX	1, 2, 3, 10, 20, 75, 100,150, 200, 250, 300, 470, 500, 1k	.70	.56	.46	.36					
767-1XXX	1.5k, 2k, 3k, 4.7k	.77	.63	.52	.41					
767-1XXX	5.1k, 10k	.80	.65	.53	.42					

STYLE VPR-10F/1HJ-12 WATT

Stock	Stock Values (Ohms)	EACH							
No.	See Table "A" Below	1-9	10-49	50-99	100-Up				
877-7XXX	1, 2, 3, 4, 5, 7.5, 10, 15, 20, 25, 30, 40, 50, 75, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 1k	.80	.67	.56	.44				
877-7XXX	1.25k,1.5k,2k, 2.5k, 3k, 4k, 5k	.85	.72	.59	.46				
877-7XXX	6k, 10k	.95	.81	.66	.52				
877-7XXX	15k, 20k ·- '	1.12	.95	.79	.62				
877-7467	25k	1.18	1.01	.82	.65				
877-7504	50k	1.28	1.09	.90	.71				

Wirewound resistors designed for applications such as voltage dropping, bias supplies, bleeders. Have thick vitreous enamel coating for excellent heat conduction and insulation. Fully protected against humidity and moisture. Tolerance is $\pm 5\%$. Please complete Stock Numbers by referring to Table A below. Average ship. wt. per 25, 8 oz.

STYLE VPR-5F/HHJ-8-WATT

Stock	Stock Values (Ohms)		EACH							
No.	See Table "A" Below	1-9	10-49	50-99	100-Up					
877-6XXX	1, 5, 7.5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250, 400, 500, 1k	.76	.64	.54	.42					
877-6XXX	2k, 3k, 5k	.81	.70	.57	.45					
877-6424	10k	.93	.79	.65	.51					

STYLE VPR-20H/2HJ-20-WATT

877-8XXX	5, 10, 25, 75, 100, 200, 250, 300, 500, 800, 1k	.93	.79	.65	.51
877-8XXX	1.25k, 1.5k, 1.75k, 2k, 2.5k, 3k, 5k	.95	.81	.66	.52
877-8XXX	7k, 10k, 15k, 20k	1.23	1.05	.87	.67
877- 8504	50k	1.55	1.32	1.09	.86
877-8537	100k	2.14	1.82	1.50	1.18

TABLE "A" STOCK VALUES

To complete Allied Stock No. Insert 3 digit number, shown in XXX column after value, in place of XXX in Allied Stock No.

	01															
_	Unm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX
	1.0	004	22	117	68	170	250	224	600	270	2200	337	6800	400	50K	504
1	1.5	017	25	124	75	174	270	227	680	277	2500	347	7000	404	II 100K	537
	2.0	027	27	127	82	177	300	230	750	284	2700	350	7500	407		
	3.0	040	30	130	100	184	330	234	800	287	3000	354	8000	410		
	4.0	054	33	134	120	190	350	237	900	294	3300	357	10K	424		
	5.0	064	39	144	125	194	390	244	1000	300	4000	370	15K	444		
	6.8	077	40	147	150	200	400	247	1200	307	4700	380	18K	454		
1	7.5	080	47	154	180	207	470	257	1250	310	5000	384	20K	457		
	10	090	50	157	200	210	500	260	1500	320	5100	387	22K	460		
	15	104	56	164	220	214	510	264	1750	327	5600	390	25K	467		
	20	114	62	167	240	220	560	267	2000	334	6000	394	47K	500		

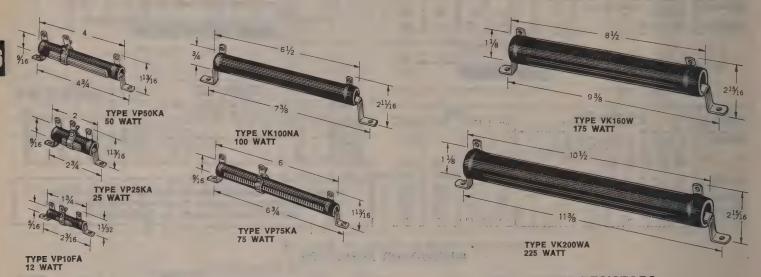
OTHER VALUES AVAILABLE: \$25.00 SET-UP CHARGE

Wirewound Power Resistors

PRECISION WIREWOUND VITREOUS ENAMEL RESISTORS

Adjustable Type. For voltage dividing networks, power supplies, transmitters-anywhere adjustable resistance is required. These resistors feature fine alloy wire, precision wound on high quality ceramic cores and insulated by vitreous enamel coatings. Slider lug and mounting brackets are included with each resistor. Resistance tolerance is ±10% of the total resistance value. Wattage ratings applies only when the entire resistance is in the circuit; with adjustable lug at intermediate point, rating is reduced in the same proportion. Wattage ratings are for free air mounting. Important-See Table A (Below) Before Ordering. Av. shpg. wt. 5-50 watts, 4 oz; 100 watts and up, 1 lb.

Fixed Types. These precision wirewound resistors are especially designed to meet a wide variety of military, industrial and general consumer applications. They offer long life and extremely reliable service. For use as voltage droppers, bias resistors and bleeders in applications where resistance need not be varied. Feature fine alloy wire, wirewound on quality ceramic cores and covered with vitreous enamel coatings - the best conductor of heat for a material which must also be a good electrical conductor. Resistance tolerance: ±5% for values 1 ohm or higher; ±10% for values below one ohm. Wattage ratings are for use in free air. Av. shpg. wt. 5-50 watts, 1.1 oz.; 100 watts and up, 7.5 oz.



ADJUSTABLE RESISTORS

VP	UFA/ IAV	12	MAI	13				
Stock	Resistance	EACH						
No.	(Ohms) See Table A	1-9	10- 49	50- 99	100 ⁻ Up			
880-10XX	1,2,3,5,7.5,10, 15,20,25,50,75, 100,150,250,300, 400,500,750.							
-	lk	1.61	1.37	1.12	.89			
880-10XX	1.5k, 2k, 2.5k 3k, 5k	1.66	1.41	1.17	.91			
880-1073	10k	1.82	1.55	1.27	1.00			
VP2	SKA/2AV	25 1	A/AT	TE				

Stock	Resistance		LH			
No.	(Ohms) See Table A	1- 9	10- 49	50- 99	100- Up	
880-11XX	1,2,3,5,10,15, 20,25,50,75,100, 150,250,300,400,					
880-11XX	500,750,1k 1,5k, 2k, 2,5k, 3k, 5k	1.77		1.24 1.27		
880-11XX 880-11XX 880-1180	15k,20k	1.93 2.03 2.19	1.73	1.42	1.12	

VP50KA/5AV-50 WATTS

Stock	Resistance	EACH							
No.	(Ohms) See Table A	1- 9	10- 49	99	100- Up				
880-1201 880-12XX	1 2,3,4,5,10,25,50, 75,100,150,200, 250,300,400,500,			2.10					
	750,1k	2.35	2.00	1.65	1.29				
880-12XX	1.5k, 2k, 2.5k, 4k, 5k	2.41	2.04	1.69	1.33				
880-1273 880-1278	10k 15k.20k	2.46	2.10	1.72	1.36				
880-1284	50k			2.17					

CROSS REF./ADJ. RESISTORS

Watts	Clarostat	Mallory	Memcor	Ohmite
12 25 50 75 100 225	VP10FA VP25KA VP50KA VP75KA VK100NA VK200WA	1AV 2AV 5AV 7.5AV 10AV 20AV	AR10-12 AR-25 AR-50 AR-75 AR-100 AR-225	210-12 210-25 210-50 210-75 210-100 210-225

VP75KA/7 5AV-75 WATTS

Stock	Resistance		EA	CH	
No.	(Ohms) See Table A	1-9	18- 49	50- 99	100- Up
880-13XX	10, 15, 25, 50, 100, 200, 300, 1k	2.73	2.32	1.92	1.50

VK100NA/10AV-100 WATTS

Stock	Kesistance	LAGII					
No.	(Ohms) See Table A	1-9	10- 49	50- 99	Up		
880-14XX 880-14XX	1,2,3 4, 5, 10, 25, 50, 100, 250,				2.18		
880-1467 880-1480	500, 1k 5k 25k	3.14	2.66	2.20	1.69 1.73 2.15		
WWOO	WA COO AV	205	347	ATT	·c		

VK200WA/20AV--225 WATTS

Stock	Resistance		CH	CH		
No.	(Ohms) See Table A	1-9	10- 49	50- 99	100- Up	
880-15XX		6.60	5.61	4.62	3.63	
880-15XX	10,25,50,100, 250,500,1k		4.28			
880-1567	5k		4.30			
880-1573	10k	5.30	4.50	3./1	2.91	

In order to service our customers bet-ter if delivery shortages occur, we will ship identical parts from one of three

FIXED POWER RESISTORS

FR10-12-12 WATTS

Stock	Resistance		EA	CH	
No.	(Ohms) See Table A	1-9	10- 49	50- 99	100- Up
880-2000 880-20XX	0.5 1, 10, 15, 33, 47, 100, 150,	1.12	.95	.79	.62
880-2073	560, 1k 10k	.79		.56 .66	

VP25K/2.5HJ-25 WATTS

Stock	Resistance				
No.	(Ohms) See Table A	1-	10- 49	50- 99	100 Up-
880-21XX	1,2,3,4,5,10,15, 25,50,75,100,150 200,250,500,750, 1k		.83	.68	.55
880-21XX 880-21XX 880-2178	1.5k, 2k, 2.5k, 3k, 4k, 5k 7.5k,10k 20k		.87 1.05 1.09		
880-2180 880-2184 880-2192	25k 50k 100k	1.39 1.66 2.19	1.41		.91

VK160W/16HJ-175 WATTS

Stock	Resistance		EA	CH	
No.	(Ohms) See Table A	1-9	10- 49	50- 99	100- Up
880-2406 880-24XX	5 10,25,50,75	4.49			

ATTENTION BUYERS

Make Allied your one-stop headquarters for all your industrial needs. Pay OEM factory prices, slash handling expenses and reduce paperwork in purchasing and receiving. You place one order, receive one shipment and make one disbursement.

ORDER INFORMATION-TABLE A

To com	To complete Allied Stock No. replace XX with appropriate code from chart below.												
Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX
	00	7.5	07	47	17	200	32	750	44	4K	63	25K	80
1.0	01	10	08	50	18	250	34	1 1 K	48	5K	67	50K	84
2.0	03	15	09	75	22	300	36	1.5K	53	1 7.5K	70	100K	92
3.0	04	20	11	100	24	400	38	2K	54	10K	73		
4.0	05	25	12	125	27	500	40	2.5K	57	15K	77		
5.0	06	33	13	150	29	560	42	3 K	59	20K	78		
OTHER	OTHER VALUES AVAILABLE AT A COLOR OFT UP CHARGE												

VP50K/5HJ-50 WATTS

Sto	EACH						
~ No		(Ohms) See Table A	1-	10- 49	50- 99	100- Up	
880-2 880-2	2XX	1 2,3,4,5,10,25,50, 75,100,150,200, 250,500,750,			1.47		
	5	1k	_		1.09		
880-2		2k, 2.5k, 5k			1.09		
880-2		10k			1.17		
880-2		20k			1.27		
880-2		50k			1.65		
B80-2	292	100k	2.89	2.40	2.02	1.55	

VK100N/10HJ-100 WATTS

Stock	Resistance	EACH						
No.	1-	10- 49	50- 99	100- Up				
880-23XX	1,2,3 4, 5, 10, 25,	3.00	2.55	2.10	1.65			
of All	50, 75, 100, 125, 150, 250, 500, 1k	2.14	1.82	1.50	1.18			
880-23XX	1.5k, 2k, 2.5k	2.19	1.86	1.54	1.21			
880-2373 880-2392	10k 100k	2.35 3.69						

VK200W/20HJ-225 WATTS

Stock	Resistance	EACH							
No.	(Ohms) See Table A	1-	10- 49	50- 99	100- Up				
880-25XX 880-25XX	1,2,3,4,5 10,25,50,75, 100,150,250 500, 1k	5.03	4.28 3.01						
880-25XX	2k, 3k, 5k		3.05						
880-2573 880-2578 880-2592	10k 20k 100k	4.07	3.41 3.46 4.28	2.85	2.24				

CROSS REF./FIXED RESISTORS

Watts	Clarostat	Mallory	Memcor	Ohmite
12 25 50 100 175 225	VP25K VP50K VK100N VK160W VK200W	16HJ	FR-10-12 FR-25 FR-50 FR-100 FR-160-175 FR-200-225	270-12 270-25 270-50 270-100 270-175 270-225

Wirewound Rheostats for Industry

VITREOUS-ENAMELED RHEOSTATS

- Choose from 12½ to 300 Watts in a Wide Range of Resistances
- · Highly Reliable and Economical

• Highly Reliable and Economical All-porcelain vitreous-enameled, siliconceramic for smooth action and electrical control. Cannot smoke, char, shrink or shift. Metal-graphite contact brushes, varied to fit current and resistance. Ratings at full setting. U.L. Recognized. Type H mounts on panels up to ¼" thick; ¼" shaft; depth behind panel (and dia.), 1¾" shaft; depth behind panel (and dia.), 1¾ shaft

DIAL PLATES AND KNOB FOR ABOVE RHEOSTATS



TYPE 3500 DIAL PLATE. Especially designed for Types R25, R50, R100 and R150 rheostats listed at right. Has 2\%" diam. rheostats listed at right. Has 23½" diam. Handsomely finished with bright figures and lines on etched black background. Features a 0 to 100 scale. Shpg. wt. 2 oz. 875-8030. 1-9 ... Ea. .50 10-49 ... Ea. .33 50-Up ... Ea. .50 10-49 ... Ea. .33 50-Up ... Ea. .50 10-49 ... Ea. .30 17YPE 3502 DIAL PLATE For Type R300 rheostats at right. Has 5½" diam; 0 to 100 scale. Shpg. wt. 2 oz. 875-8031. 1-9 ... Ea. .122 10-49 ... Ea. .81 50-Up ... Ea. .63 10-49 ... Ea. .63 10-49 ... Ea. .63 10-49 ... Ea. .64 10-49 ... Ea. .65 50-Up Ea. .81

TYPE 2519 HANDWHEEL. With pointer. For Type R300. 33%" diameter. Wt. 2 oz. 875-8050 1-9 Ea. 2.40 10-49 Ea. 1.60 50-Up Ea. 1.36

TYPE 2514 KNOB. 1½" finger-grip type for Types R25, R50, R100 and R150. Wt. 207 2 oz. 875-8060. 1-9... Ea. .50 10-49... Ea. .33 50-Up Ea. .28

DIAL PLATE AND KNOB FOR TYPE R121/2 RHEOSTAT

TYPE 3501 DIAL PLATE. 1%" dia. Black background. Wt. 1 oz. 875-8035. 1-9... Ea. .50 10-49... Ea. .33 50-Up ... Ea. .28 TYPE 2400 KNOB. 3/4" finger-grip. Black. Wt. 1 oz. 875-8061. 1-9....Ea. .55 10-49....Ea. .33

121/2 WATT-TYPE R121/2

	1672 WATE
Maximum hot spo	ot temp. of 340°C. Resis.
±10%. 78" dia.	11/16" behind panel. 1/8"
dia. shaft, 3/8" lo	ong. Torque, 1-6 ozin.
	1/8" by 1/4-32 bushing.
non-turn project.	Rotat. 300° ±5°. 21/2 oz.
man raspi projecti	

n-turn proje	ct. Hotat. 3	300° ±5°.	2½ oz.	875-4011 875-4012	610	75 100	B
Stock No.	Mfr's Type	Ohms	Price Code	875-4014 875-4015	613 614	175 250	B B
875-4001 875-4003 875-4005	600 602 604	38	A	875-4017 875-4019 875-4020	616 618 619	500 1000 1500	A A
875-4006 875-4007	605 606	10 15	A A	875-4021 875-4023	620 622	2500 5000	A C
		2	S WATT_TY	PE R25			

Mfr's Type

607

405 406 407

7.5 10 16

Ohms Code

25 WATT—TYPE R25											
875-4025 875-4026 875-4027 875-4028 875-4030	100 101 102 103 105	1 2 3 6 10	A A A	875-4037 875-4038 875-4039 875-4040 875-4041	112 113 114 115 116	125 175 250 350 500	B B B B				
875-4031 875-4032 875-4033 875-4034 875-4035 875-4036	106 107 108 109 110 111	15 25 35 50 75 100	B B B B B B B B B B B B B B B B B B B	875-4042 875-4043 875-4044 875-4045 875-4046 875-4047	117 118 119 120 121 122	750 1000 1500 2500 3500 5000	A A C C				

50 WATT-TYPE R50

Have 4'' diameter shaft. Resistance tolerance of $\pm 10\%$. Torque, 0.25 to 2.0 lbs.in. For standard mounting in panels up to 4'' by 4''-32 bushing with No. 5050 non-turn washer. Rotation, 300° $\pm 5^\circ$.

St

875-4 875-4

asilei. r	iotation, so	0- <u>-</u> 5		875-4060 875-4061	212	150	Ë
ock	Mfr's Type	Ohms	Price Code	875-4062 875-4063 875-4064	214 215 216	225 300 500	E
4048 4049	200 201	0.5	D	875-4065 875-4066	217 218	800 1000	F
4050 4051	202	2 4	D.() 3	875-4067 875-4068	219 220	1600 2500	F
4052 4053	204 205	6	D ·	875-4069 875-4070	221 222	3500 5000	H
4054	206	1 12	E 1	875-4072	224	10k	H

875-4056 875-4057 875-4058

100 WATT-TYPE R100 875-4078 875-4079 875-4080

Have $\frac{1}{4}$ " dia. shaft. Resis, tol: of $\pm 10\%$. $3\frac{1}{4}$ " dia. $1\frac{1}{4}$ " behind panel. Torque, 0.5–2.0 lb.-in. For panels up to $\frac{1}{4}$ " by $\frac{1}$

Rotation, 300°	± 5°. Wt.	8 oz.		875-4082	409	50	Ř	
				875-4084 875-4085	411 412	100 200	K	
Stock No.	Mfr's Type	Ohms	Price Code	875-4086 875-4087	413 415	300 500	K K	
875-4073	400	0.5	J	875-4088	416	750	K	
875-4074 875-4075	401	2	J	875-4089 875-4090	417 419	1000	J	
875-4077	404	. 5	J	875-4091	421	5000	Ĺ	

875-4098 875-4099

4" dia.; ¼" shaft dia. Resis., ±10%. Torque, 0.5-2.0 lb.-in. For panels up to ¼" by %"-32 bushing; non-turn washer.

Rotat., 300° ±	±5°. ; .,	i an i	900 9 W 12 1	875-4101 875-4102	510 511	50 75	N N
Stock No.	Mfr's Type	Ohms	Price Code	875-4103 875-4104	512 513	100 150	N N
875-4093 875-4094 875-4095	500 501 504	0.5	M M	875-4106 875-4108 875-4110	515 517 519	250 500 1250	N N M
875-4097	506	10	M	875-4111	525	10k	Р

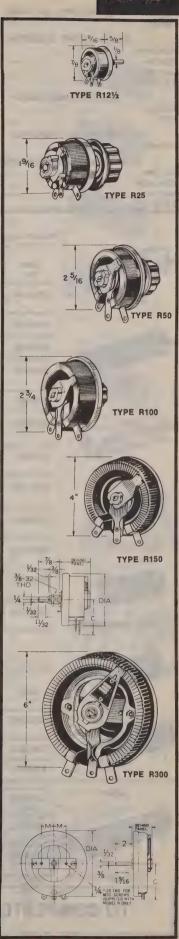
Have 6" diameter with %" shaft diameter. Resistance tolerance of ±10%. 2.38" behind panel; 4%" long. Torque, 2.5 to 5.0 lb.-in. Standard mounting—for panels up to 1½" thick. Use two ¼-20 by 1½" flat head screws. Rotation, 320° ±5°, Standard knob, No. 5105. Shpg. wt. 2½ lbs. 875-4112 875-4114

89°	875-4115 875-4117 875-4119 875-4120 875-4121	704 706 708 709 711	10 25 50 100	RRRR
 :1·	875-4122 875-4123 875-4127 875-4128	712 713 718 719	150 200 1200 1500	R R R

ALLIED'S NATIONWIDE SERVICE ASSURES YOU PROMPT SHIPMENT OF ALL YOUR ELECTRONIC NEEDS

AREU	STAT CROSS REFERE	NCE
Memcor	Ohmite	Mallory
R12½ R25 R50 R100 R150 R300	Type E Type H Type J Type K Type L Type N	25K 50K 100K 150K 300K

	Daine		E/	ACH		Duine		E	ACH		Price		E	ACH	
	Price Code	1-	5- 9	10- 24	25- Up	Price Code	1-4	5- 9	10- 24	25- Up	Code		5- 9	10- 24	25- Up
PRICE	AB	6.33 5.71	5.38 4.84	4.21 3.78	3.47 3.11	H	7.63 10.68	6.07 8.50	4.72 6.61	4.35 6.27	PR	21.41 20.80	18.20 16.89		12.80
LOCATOR	CD	6.79 7.78	5.78 6.18	4.54 4.81	3.73 4.35	K	9.75 11.95	7.76 9.51	6.03 7.40	5.69 7.21					
	F	6.93 7.25	5.51 5.77	4.28 4.49	3.63 4.12	N	13.72 13.63	10.93 10.85	8.50 8.43	8.27 8.19	• • • • •				



Clarostat .

Adjustment Potentiometers

CONTROLS INDEX POTENTIOMETERS, ADJUSTMENT Bourns	96-98
POTENTIOMETERS, LINEAR MOTION Maurey	
POTENTIOMETERS, MIL SPEC Clarostat TRW/IRC POTENTIOMETERS, MULTI-TURN	
Bourns. CTS TRW/IRC	109
POTENTIOMETERS, SLIDE ACTUATED	

	Clarostat	
	POTENTIOMETERS, TRIMMER Amphenol	
	POTENTIOMETERS, WIREWOUND Amphenol	
6311	POTENTIOMETER BRAKES	
	Bourns	
50	TRIMMERS102	
	Mallory	

RECTANGULAR MULTI-TURN WIREWOUND

Mounting and leads: L, leads, screw mt.; S, solder terms., screw mt.; J, solder lugs, screw mt.; P, PC pins, offset.

) nama	र वेंद्र स्वाचार स्वाचार केंद्र केंद्र	Dimensions	Res.	Power	Max.	Nom.	Humidity	Stock		E#	ACH	
Stock No.	Mfr's Type	Description	H x W x L Inches	Tol.	Watts @ °C	Temp.	Adj. Turns	Mil Spec	Res. Ohms	1-4	5- 9	10- 24	25 Up
528-21RC	200L	Low-cost Trimpot®	.32x.26x1.25	±10	0.5/70°	105	25	Steady state	1k, 2k, 5k 25k	6.65 9.00	5.32 7.20	4.58 6.00	4.0 5.4
528-22RC	200P				1000			1	200, 1k, 2k	6.65	5.32	4.50	4.0
528-23RC	2008								5k, 10k	6.65	5.32	4,50	4.0
528-40RC	224P	High temperature (RT12)	.32x.19x1.25	±5	1/70°	175	22	Yes ?	5k, 10k 20k	9.63 11.98	7.70 9.58	6.50 8.00	5.8 7.2
528-40RC	224P-2								100k	13.18	11.31	10.50	9.4
528-57RC	271L.	Commercial Trimit®	.32x.26x1.25	±10	.50/70°	105	25	Steady state	100, 500, 1k, 5k, 10k 20k	4.38 6.06	3.50 4.82	2.95 4.00	2.6
528-64RC	275P	j '0' i 27	- NA 255.			2.5	. 1	٠	1k, 5k, 10k / 20k	4.38 6.03	3.50 4.82	2.95 4.00	3.1
528-72RC	3005P	Sealed commercial E-Z-Trim®	.31x.17x.75	±10	1/40°	125	20	Steady state	10, 1k, 2k, 5k, 10k, 20k	3.05	2.44	1.85	1.7
528-73RC	3007P	Commercial E-Z-Trim	.31x.17x.75	±10	1/40°	125	20	Steady state	100, 200, 500, 1k, 2k, 5k, 10k, 20k	2.40	1.92	1.62	-1.4
529-01RC	3065P	Humidity proof commercial E-Z-Trim	.36x.29x1.0	±10	0.5/25°	85	15	Steady state	10k :	2.93	2.34	- 1.85	1.0
529-02RC	3067P	Commercial E-Z-Trim	.36x.29x1.0	±10	0.5/25°	85	15	No	50, 100, 200, 500, 1k, 2k, 5k, 10k, 20k	2.55	2.04	1.71	1.1
529-03RC	3067S								100, 200, 500, 1k, 2k, 5k, 10k, 20k	2.55	2.84	-1.71	1.1

RECTANGULAR MULTI-TURN CERMET

Suffix	Ρ,	inline	PC	pins;	suffix	Υ,	offset	PC	pins.	
				_						

			Dimensions	Res.	Power	Max.	Nom.	Humidity	Stock		EA	CH	
Stock No.	Mfr's Type	Description	H x W x L Inches	Tol.	Watts @ °C	Temp.	Adj. Turns	Mil Spec	Res. Ohms	1-	5-	10- 24	25- Up
528-82RC	3012L	High temperature cermet element (RJ11)	.32x.28x1.25	±10	1/70°	175	22	Yes	10k, 50k	8.63	6.90	5.50	4.9
528-83RC	3012P								1k, 5k, 100k	8.63	6.90	5.50	4.9
528-93RC	3052P	High temperature cermet element (RJ12)	.32x.19x1.25	±10	1/70°	. 175	22	Yes	1 meg	8.63	6.90	5.50	4.5
528-95RC	3059L	High temperature humidity proof (RJ12)	.32x.19x1.25	±10	1/70°	150	22	Yes	1k, 10k, 100k	4.70	3.78	2.85	2.
528-86RC	3059P								500, 2k, 5k, 10k, 20k, 50k, 100k	4.70	3.76	2.85	2.
528-97RC	3059Y					-	-		100, 200, 1k, 5k 10k, 20k, 100k	4.70	3.76	2.85	2.

TO COMPLETE STOCK NO., SEE ORDERING INFORMATION ON NEXT PAGE

3059P

3065P, 3067P, 3067S

Adjustment Potentiometers



RECTANGULAR MULTI-TURN CERMET

Stock	Mfr's		Dimensions	Res.	Power	Max.	Nom.	Humidity	Stock		EA	CH	
No.	Туре	Description	HxWxL Inches	Tol.	Watts @°C	Temp.	Adj. Turns	Mil. Spec	Res Ohms	1-4	5-9	10-24	25-Up
528-19RC	3006P	Commercial Trimpot	.25x.19x.75	±10	.75/70°	125	15	Yes	50, 100, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k, 200k, 500k, 1 meg	2.13	1.70	1.30	1.21
528-74RC	3009P	Commercial E-Z Trim	.35x.19x.75	±10	.75/25°	125	· 20	Yes	10, 20, 50, 100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k, 200k, 500k, 1 meg, 2 meg	3.03	2.42	1.84	1.75
528-75RC	3009Y	× 1 .0.1	1. 201		ren .		٠,	40.00	2k, 5k, 10k, 50k	3.03	2.42	1.84	1.75
529-06RC	3069P	Commercial E-Z Trim	.35x.25x.75	±10	.75/25°	125	20	Yes	100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k, 500k, 1, meg, 2 meg	3.03	2.42	1.84	1.75
529-08RC	3099P	Dual in-line package	.25x.19x.75	±10	1/70°	150	20	Yes	1k, 10k, 100k, 500k	4.80	3.84	3.35	3.00

MULTI-TURN RESISTON® CARBON

Stock	Mfr's	1	Dimensions	Res.	Power	Max.	Nom.		Stock		EA	CH	
No.	Туре	Description	HxWxL Inches	Tol. Watts Temp. Adj. Mil. Spec		Res. Ohms	1-4	5-9	10-24	25-Up			
528-65RC	276P	Commercial Trimit Resistatoy	.32x.26x1.25	±20	.20/25°	105	25	No	10k, 100k	5.50	4.40	3.50	3.15
529-14RC	3068P	Commercial E-Z Trim	.36x.28x1	±20	.20/25°	85-	15	- No	20k, 50k, 100k, 200k, 500k	2.55	2.04	1.71	1.54

CERMET SQUARE MULTI-TURN PC MOUNTING

Suffix W vertical mount, top adjustment. For .100" grid.

Stock	Mfr's	Description	Dimensions HxWxL Inches	Res.	Power Watts @°C			Humidity			EA	СН	
No.	Type			Tol.		Temp. °C	Adj. Turns	Mil. Spec	Res. Ohms	1-4	5-9	10-24	25-Up
529-20XX		Humidity-proof high temperature (RJ26)		±10		175	12	. Yes	2k, 5k, , ,	9.55	7.64	6.50	5.84

CERMET ELEMENT

529-48XX	3329H	High performance cermet single turn	.250 dia.x.18	±10	0.5/85°	150	240°	Yes	1k, 10k, 20k, 50k, 100k	2.75	2.20	1.66	1.57
529-49XX	3329P								1k, 2k, 5k, 50k	2.75	2.20	1.66	1.57
529-52XX	3339P	Four-turn cermet	.300 dia.x.25	±20	0.5/85°	150	4	Yes	1k, 10k, 20k, 100k	3.45	2.76	2.32	2.09
529-67XX	3369P	Single-turn high performance	.500 dia.x.457	±10	1.0/125°	175	295°	Yes	1k, 10k	3.20	2.59	2.20	1.70
529-80XX	3389P	Single-turn commercial	.24x.39x.36	±20	. , 0.5/70°	125	280°	Yeş	5k, 10k, 20k, 100k	1.13	.90	.70	.65
529-81XX	3389T								10k	1.13	.90	.70	.65
529-82XX	3389W	,							2k, 10k 50k, 500k, 2 meg	1.13	.90	.70	. 65

SQUARE MULTI-TURN CERMET

_												
529-17RC 3252W	High performence humidity proof (RJ22)	.50x.50x.22	±10	1/70°	150	23	Yes	10k, 20k, 100k	8.33	6.66	5.35	5.08

TOCK NO. Highly reliable ratchet drive code (RC shown to right in Stock No.; Individual Molded-in shaft retainer No. RC Ohms RC Sik 40 500k 64 Dk 46 1 meg 70 Dk 49 2 meg 73 Molded-in gins






3252W

HOW TO COMPLETE ALLIED STOCK NO.-

To complete Allied Stock No., insert numeric code (RC shown to right of ohm value in table below) in place of RC in Stock No.; Individual listings show values available.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
10 20 50 100	04 07 13 16	200 500 1000 2000	19 22 25 28	2500 5000 10k 20k	29 31 34 37	25k 50k 100k 200k	40 46 49 58	500k 1 meg 2 meg	64 70 73

19/64

1-19/32-1-9/32

3353W

3862C

3852A

Adjustment Potentiometers and Controls

CARBON COMPOSITION VARIABLE RESISTORS

Suffix P = Horizontal mount, W = Vertical mount.

 011.	Mfr's Description		Dimensions	Humidity	Std.	EACH							
Stock No.	Mir's Type	Description	Dia. x H. Inches	Tol. %	Power Watts @ °C	Temp.		Mil Spec.	Res.	1- 49	50- 99	100- 249	250- Up
529-21XX 529-25XX	3353P 3353W	Single-turn	1%2 × 5/6 1%2 × %2	±20	1/3 @ 60°	[,] 70	3009		1k, 5k, 10k, 50k, 100k, 500k, 1 meg	.46	.43	.34	.28

CONTROLS WITH CERMET ELEMENTS

3852A has 3/4-32 bushing. 1/4" dia. shaft. 3862C has 1/4-32 bushing. 1/8" dia. shaft.

		11	Dimensions	Res.	Power	Max.	Nom.	Humidity	Std.		EA	CH	
Stock No.	Mfr's Type	Description	inches	Tol.	Watts @ °C	Temp.	Adj. Turns	Mil Spec	Res. Ohms	1- 9	10- 24	25- 49	50- Up
529-41XX	3852A-162	Panel control	.750 dia.	±10	2/70°	150	280°	Yes	1 meg	2.60	2.14	2.09	1.99
529-44XX	3862C-282	Panel control	500 dia.	±10	1/125°	175	295°	· Yes ·	1 k	4.20	3.95	3.80	3.40

WIRE-WOUND SINGLE-TURN ADJUSTMENT POTENTIOMETER

Suffix P = Horizontal mount

Ot I	204-1-		Dimensions	Res.	Power	Max.	Nom.	Humidity	Std.		EA	CH	
Stock No.	Mfr's Type	Description	Dia. x H. Inches	Tol.	Watts @ ∘C	Temp.	Adj. Turns	Mil Spec	Res. Ohms	1-	5- 9	10- 24	25- Up
529-46XX	3305P	Sealed commercial Trimit	.31 x .19	±5	0,5 @ 70°	125	280°	Steady state	1k, 2k, 5k	2.70	2.16	1.68	1.61
529-46XX	3305P								.: 10k	3.10	2.48	1.92	1.84

ORDERING INFORMATION

See listings above for values available in each type style. To complete Allied Stock No., insert Resistance Code (RC—shown to right of ohms value in table at right) in place of XX in Stock No.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
1k	25	5k	31	50k	46	500k	64
2k	28	10k	34	100k	49	1 meg	70

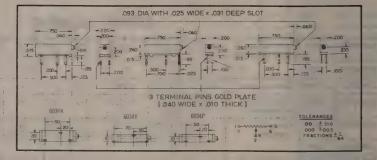
MICROPOT TRIMMER POTENTIOMETERS

SERIES 6034 COMMERCIAL CERMET ELEMENT TRIMMERS



ACTUAL

Low-cost, commercial cermet-element trimmers offer infinite resolution in a wide resistance range. Multi-finger precious metal contact reduces CRV to a minimum, enhances rotational life. Commercial $^3\!\!/_4''$ rectangular style with solvent-resistant nylon case and popular 0.100'' PC pin spacing. Immersion proof; ideal for use in automated board cleaning processes. Available in resistance values from 10 ohms to 1 megohm, with temperature coefficient as low as 50 PPM/°C. Shpg. wt. 2 oz.



- Rectangular 3/4" Style with Popular .100" Printed Circuit Pin Spacing
- Immersion-proof Case Is Ideal for Automated Board Cleaning Processes

RESISTANCE VALUES AND PRICES

	Maxi	mum	P Te	rminal	K Te	rminal	Y Tei	minal	EACH	(Any Te	rminal	Type)
Ohms	mA	Volts	Stock No.	Mfr's Type	Stock No.	Mfr's Type	Stock No.	Mfr's Type	1-	10- 24	25- 49	- Up
100	71	7.0	714-9451	6034P-101			714-9488	6034Y-101	3.00	2.40	1.31	1.25
200	50	10.1	714-9452	6034P-201					3.00	2.40	1.31	1.25
500	32	15.8	714-9453	6034P-501	714-9472	6034K-501	714-9490	6034Y-501	3.00	2.40	1.31	1.25
1000	22	22.3	714-9454	6034P-102	714-9473	6034K-102	714-9491	6034Y-102	3.00	2.40	1.31	1.25
2000	16	31.6	714-9455	6034P-202	714-9474	6034K-202	714-9492	6034Y-202	3.00	2.40	1.31	1.25
5000	10	50.0	714-9456	6034P-502	714-9475	6034K-502	714-9493	6034Y-502	3.00	2.40	1.31	1.25
10k	7.1	70.7	714-9457	6034P-103	714-9478	6034K-103	714-9494	6034Y-103	3.00	2.40	1.31	1.25
20k	5.0	100.0	714-9458	6034P-203	714-9479	6034K-203	714-9495	6034Y-203	3.00	2.40	1.31	1,25
50k	3.2	158.0	714-9459	6034P-503	714-9480	6034K-503	714-9496	6034Y-503	3.00	2.40	1.31	1.25
100k	2.2	223.0	714-9460	6034P-104	714-9481	6034K-104	714-9497	6034Y-104	3.00	2.40	1.31	1.25
200k	1.5	300.0	714-9461	6034P-204	714-9482	6034K-204			3.00	2.40	1.31	1.25
500k	0.6	300.0	714-9462	6034P-504	714-9483	6034K-504	714-9499	6034Y-504	3.00	2.40	1.31	1.25
1 meg	0.3	300.0	714-9463	6034P-105	714-9484	6034K-105	714-9500	6034Y-105	3.00	2,40	1.31	1.25

SPECIFICATIONS

ELECTRICAL. Resistance Values: 10 ohms to 1 megohm. Resistance Tolerance: ±10%. Resolution: Infinite. End Resistance: 1% or 20 ohms, whichever is greater. Usable Range: 100%. Insulation Resistance: 1000 megohms minimum. Output: Linear, with shaft adjustment. Contact Resistance Variation: 3% of total resistance or 20 ohms, whichever is greater. Continuity: Continuous and unidirectional, maintained for full mechanical range.

MECHANICAL. Number of Turns: 15. Mechanical Stops: Contact idles with no electric discontinuity. Shaft Torque: 8.0 oz.-in. max. Rotational Life: 200 cycles min. with no discontinuity. Terminal Type: PC pins. Weight: Approx. 1.3 grams. Volume: .0399 cu. in.

cu. in.

ENVIRONMENTAL. Operating Temperature Range:
—55°C to +125°C (—67°F to +257°F). Power
Rating: ½ watt at 85°C, derated to zero at 125°C.
Temperature Coefficient: 100 PPM°C. Vibration:
Per MIL-STD-202B, Method 204A—Cond. D. Shock:
Per MIL-STD-202B, Method 213—Cond. I. Dielectric Strength: 900 V rms at room temperature. Load
Life: 1000 hours, ½ watt at 85°C, Humidity: Sealed construction. Humidity-Moisture Resistance: Per MIL-STD-202B, Method 106.

Wirewound Trimmers and Potentiometers

MILITARY, INDUSTRIAL AND COMMERCIAL TRIMMERS AND POTENTIOMETERS

All meet military specifications MIL-R-27208. Resistance tolerance is ±5%. Temperature coefficient, ±50 ppm/°C. Type 100. Sturdy 30 oz.-in. stops; sealed construction. High resolution. Gold plated PC pins. Diallyl phthalate moisture sealed cases meet MIL-STD-202B. Type 205. Optimum 28:1 ratio provides precision adjustment. Diallyl phthalate case. Teflon insulated leads or pins. Type 400. Rigid unibody molded case. Type 00 has Teflon leads, type 10, metal alloy pins, type 20 gold plated pins. Type 800. Completely sealed. Gold plated pins. Important: See Table A at bottom of page for How to Order.

					Pwr	Temp		Torque			EAG	CH	
Stock No.	Mfr's Type	Military Type	Type	Term Style or Mounting	Watts °C	Range	Turns	oz.— Turns	Std. Res. Ohms Specify Values	1- 9	10- 24	25- 49	50- Up
822-12RC 822-12RC 822-13RC	100 100 100-1		½" round	Tr. Socket/PC Tr. Socket/PC PC	1/70	-55/+150	1	0.25 to 7.5	100, 1k, 5k, 10k 20k 1k, 2k, 10k	4.38 5.63 5.63	3.50 4.50 4.50	2.70 3.46 3.46	2.45 3.22 3.22
822-34RC 822-37RC 822-37RC	205-00 205-208 205-208	RT-22C2L RT-22C2W RT-22C2W	½" square	Wire Leads Edge Mtg. PC Edge Mtg. PC	1/70	-65/+175	25±2		1k, 2k 1k, 2k, 5k, 10k 20k	7.10 7.10 7.83	5.68 5.68 6.26	4.25 4.25 4.66	4.00 4.00 4.40
822-44RC 822-44RC 822-47RC	400-00 400-00 400-20	RT-12C2L RT-12C2L RT-12C2Y	1¼" rect.	Wire leads Wire leads.	1/70	-65/+150	22±5	0.1 to 8.0	200, 10k 50k 5k, 10k	7.50 9.03 7.50	6.00 7.22 6.00	4.62 5.55 4.62	4.29 5.16 4.29
822-73RC	800-20		5/1e" square	Edge Mtg. PC	0.6/70	-65/+150	15.0 ±2.0	3	1k, 5k	7.38	5.90	4.54	4.21



METAL GLAZE® MILITARY AND INDUSTRIAL TRIMMER POTENTIOMETERS

All meet military environmental specs of MIL-R-22097, Characteristic C. Temperature coefficient ±100 ppm°C maximum. Rotation life, 200 cycles without discontinuity. Load life, 1000 hours minimum at rated power. Resistance tolerance, ±10%. Inflinite resolu-

tion due to Metal Glaze® element. Gold-plated pins. Type 450. Rigid unibody molded case construction. Humidity-proof construction. Excellent high-frequency characteristics. See Table A Below for How to Order.

|--|

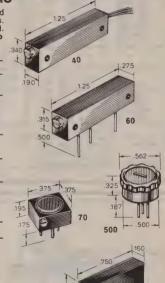


LOW COST COMMERCIAL TRIMMERS AND POTENTIOMETERS

Resistance tolerance, ±10%. Temperature Coefficient, ±70 ppm/° C, *except ±50 ppm/° C. Type 40. Long-winding element. Silver-brazed multi-wire terminations. Self-locking shaft. Type 00 has stranded tefion leads. Type 60. Gold-plated pins. Type 70. Mini configuration. Self-locking shaft. Type 500. Single-turn action. Gold-plated pins. Type 910. Low temperature coefficient premium resis-

tance wire. Completely sealed. Type 550. Single-turn action. Gold plated pins. Type 45. Readily solderable pins. Self-locking shafts. Type 00 has standard Teflon leads. Types 961. Completely sealed. Type 960. Completely sealed. Important: See Table A for how to order.

				Pwr	Temp		Torque			E/	ACH	
Stock No.	Mfr's Type	Туре	Term Style or Mounting	Watts @°C	Range	Turns	oz.— in.	Std. Res. Ohms Specify Values	1-	10-	25- 49	50- Up
822-15RC	40-00	1½" rect.	Wire Leads	1/50	65+150	22±5	8	100, 1k, 2k, 5k,10k 20k	4.95 5.50	3.80 4.25	3.15 3.90	3.00 3.75
822-19RC	40-20	1½" rect.	Staggered Pins	1/70	-55+125	22±5	8	100, 1k, 2k, 5k, 10k 20k	4.95 5.50	3.80 4.25	3.15 3.90	3.00 3.75
822-98RC	60-20	1¼" rect.	Staggered pins	1/70	<u>-55/+125</u>	22±5	8	1k, 10k	4.00	2.65	2.45	2.28
822-26RC	70-10	%" square	PC	0.75/70	-65/+150	21±3	5	500, 10k	4.75	3.50	3.15	2.97
822-56RC	500	1/2"	PC LARGE DUE 1621	1/50	-55/+125	1	7,5	50, 100, 200, 500,	2.02	2.42	4.05	1.71
822-56RC 822-56RC	500 500	round	PC PC			1 3	* 10	1k, 5k, 10k 20k 50k	3.03 3.30 3.78	2.42 2.64 3.02	1.85 2.03 2.32	1.89
822-77RC	910-20	34" rect.	Staggered pins	1/40	-65/+125	20	5	1k, 5k	2.10	1.71	1.54	1.46

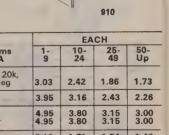












		Trimmer		Pwr	Temp	Temp		Torque	Res			EA	CH	
Stock No.	Mfr's Type	Potentiometer Type	Term Style or Mounting	Watts @°C	Range	Coeff ppm/°C	Turns	oz	Tol %	Std. Res. Ohms See Table A	1-9	10- 24	25- 49	50- Up
822-58RC	550	½" round	Std. mnt.	0.5/70	-55/+150	±150	1,	7.5	±30	200, 1k, 2k, 10k, 20k, 50k, 100k, 1 Meg	3.03	2.42	1.86	1.73
822-59RC	556	½" round	Vertical Mtg.	0.5/70	-55/+150	±150	1	7.5	±30	1k, 10k	3.95	3.16	2.43	2.26
822-7659 822-80RC	45-00 45-10	1¼" rectangular	Wire lead In-line pins	.75/70	-55/+150	±250	22 ±5	8.0	±20	100k 1k, 10k	4.95 4.95	3.80 3.80	3.15 3.15	3.00 3.00
822-81RC	960-20	¾" rectangular	Staggered	0.75/40	-65/+125	±100	20	5.0	±10	100, 2k, 10k, 50k	2.10	1.71	1.54	1.46
822-87RC	961-20	¾" rectangular	Staggered	0.75/40	-65/+125	±100	20	5.0	±10	1k, 5k, 10k, 20k, 50k, 1 meg.	1.98	1.58	1.25	1.15

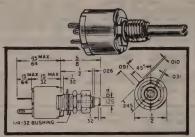
HOW TO ORDER-TABLE A Complete the Stock No. by placing the Designated Resistance Code for Ohms (RC) in Stock No.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
50	07	100	13	200	20	500	26	1000	29	2000	32	5000	38	10k	41	20k	44	50k	53	100k	59	200k	68	1 meg	87

MIL-R-94B RV4 2-WATT COMPOSITION POTENTIOMETER

Crafted of the finest materials available to insure long, reliable service. Provides extra long life with very low noise level. 1/4" dlameter. Rated 2 watts. Precision construction is completely enclosed. Carbon-ceramic element. RV4L designates 5/4" screwdriver slotted shaft FMS with 1/2" split locking bushing provided. RV4N Indicates 7/4" screwdriver slotted shaft FMS. 3/4" long bushing has 5/6-32-NEF-2A thread. Av. shpg. wt. 4 oz.

MIL-R-94B RV6 1/2-W COMPOSITION POT



Quality crafted potentiometer has been military approved for its performance. Meets a wide variety of military, Industrial and general consumer applications. ½" diameter. Has %" diameter slotted shafts and ¼" bushings. Units have extremely high resolution and are highly stable. Particularly suited for applications that require miniaturization and complete reliability. A valuable economic choice because of their consistent precision service. Av. wt. 4 oz.

STOCK NO.-LIST-SEE PRICES BELOW

Stock No.	MIL Type RV4LAYSA-	Ohms	Stock No.	MIL Type RV4NAYSD-	Ohms
753-1135 753-1001	500A 101A	50 100	753-1301	101A	100
753-1075	251A	250	753-1375	251A	250
753-1140 753-1005	501A 102A	1000	753-1440 753-1305	501A 102A	1000
753-1055	202A	2000	753-1355	202A	2000
753-1080 753-1145	252A 502A	2500 ° 5000	753-1380 753-1445	252A 502A	2500 5000
753-1010 753-1060	103A 203A	10k 20k	753-1310	103A	10k
753-1085	253A	25k	700 1000	253A	25k
753-1150 753-1015	503A 104A	50k -	753-1450 753-1315	503A 104A	50k 100k
753-1045 753-1090	154A :	150k 250k	753-1390	254A	250k
753-1050	504A	500k	753-1350	504A	500k
753-1180 753-1020	754B 105B	750k	753-1480 753-1320	754B 105B	750k
753-1070	205B	2 m	************		
753-1095 753-1160	255B 505B	2.5 m	753-1400 753-1460	305B 505B	. 3 m

RVA AND RVS PRICING

		EA	СН	
Туре	1-9	10-49	50-99	100-Up
RV4N	1.95	1.60	1.50	1.25
RV4L RV6N	2.25	1.90	1.58	1.33
RV6N	5.00	3.65	2.19	1.90
RV6L	5.00	3.88	2.33	2.02

RV4 SPECIFICATIONS

1 meg = 10% over 1 meg = 20%
312° = 3° without switch
333° = 3° with switch
Per MIL-R-94
500 VDC across end term.

RV6 SPECIFICATIONS
250k ± 10% over 250k ± 20%
0.5 @ 70°C Derate to 0 @ 120°C
295° ± 5°
Per MIL-R-94
350 VDC max.

STOCK NO. LIST-SEE PRICES BELOW LEFT

Stock No.	MIL Type RV6LAYSA-	Ohms	Stock No.	MIL Type RV6NAYSD-	Ohms
753-1501	101A	100	753-1865	501A	500
753-1545	251A	250	753-1805	102A	1000
753-1570	501A	500	753-1845	252A	2500
753-1505	102A	1000	753-1870	502A	5000
753-1550	252A	2500	753-1810	103A	10k
753-1575	502A	5000	753-1825	153A	15k
753-1510	103A	10k	753-1850	253A	25k
753-1555	- 253A	25k	753-1875	503A	50k
753-1580	503A	50k	753-1815	104A	100k
753-1520	104A	100k			1

HOW TO READ MIL NUMBERS

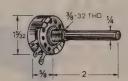
MIL-R-19A covers wirewound pots; MIL-R-94B carbon composition pots, "MIL" DESIGNATION FOR RV4-RV6 POTENTIOMETERS PER MIL-R-94

RV () N N A	15 Y 1965.	. SB	104	B RESIST, CHAR, &
STYLE BUSHING SWITCH	TEMP. & MOISTURE RESIST, CHAR.*	OPERATING SHAFT-	RESISTANCE.	OVERALL RESIST.
STYLE: RV4-2 WATT: RV6-0.5 WATT BUSHING: N-STANDARD: L-LOCKING	OPERAT	,	1ST Letter = Styl	F .
SWITCH: A-NONE	,		MIL-R-94	ii. Hom mig. surface
TEMP. & MOISTURE RESIST. C	HAR.* St	yle		Length

RESIST. CHAR. & OVERALL RESIST. TOLERANCE A-Linear = 10%
B-Linear = 20%

RESISTANCE (OHMS): First two digits are significant and last one is number of zeros to follow.

MOLDED COMPOSITION 2-WATT POTENTIOMETERS



53C1

Quality crafted trimmers and potentiometers. Molded composition. 2-watt. %~x~1%2'' in diameter. They mount in %'' holes in panels to %'' thick and 2%'' long, %'' round shafts. All have $\pm 10\%$ tolerance except for *, which indicates $\pm 20\%$ tolerance. Av. shpg. wt. 3% oz.

CROSS REFERENCE GUIDE

Military	Ohmite	Clarostat
Type No.	Type No.	Type No.
RV4NAYSK101A	CU1011	53C1-100
RV4NAYSK251A	CU2511	53C1-250
RV4NAYSK501A	CU5011	53C1-500
RV4NAYSK102A	CU1021	53C1-1000
RV4NAYSK252A	CU2521	53C1-2500
RV4NAYSK502A	CU5021	53C1-5000
RV4NAYSK103A	CU1031	53C1-10K
RV4NAYSK253A	CU2531	53C1-25K
RV4NAYSK503A	CU5031	53C1-50K
RV4NAYSK104A	CU1041	53C1-100K
RV4NAYSK105A	CU1052	53C1-1 Meg

- Quality Crafted for Long Reliable Service at a Low Economical Price
- 2 Watt, Molded Composition
- For a Wide Variety of Commercial and Industrial Applications
- Provide Dependable Performance

				EA	CH						EA	CH	
Stock No.	Mfr's Type	Ohms	1- 9	10- 49	50- 99	100- Up	Stock No.	Mfr's Type	Ohms	1-9	10- 49	50- 99	100- Up
875-1327 875-1301 875-1306 875-1316 875-1328	53C1 53C1 53C1 53C1 53C1	50 100 150 250 500	2.08 2.08 2.08 2.08 2.08	1.87 1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25 1.25	875-1323 875-1330 875-1335 875-1304 875-1309	53C1 53C1 53C1 53C1 53C1	35k 50k 75k 100k 150k	2.08 2.08 2.08 2.08 2.08 2.08	1.87 1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25 1.25
875-1333 875-1302 875-1307 875-1317 875-1322	53C1 53C1 53C1 53C1 53C1 53C1	750 1k 1.5k 2.5k 3.5k	2.08 2.08 2.08 2.08 2.08 2.08	1.87 1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25 1.25	875-1319 875-1325 875-1331 875-1336 875-1305	53C1 53C1 53C1 53C1 53C1	250k 350k 500k 750k 1 meg*	2.08 2.08 2.08 2.08 2.08	1.87 1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25 1.25
875-1329 875-1334 875-1303 855-1308 875-1318	53C1 53C1 53C1 53C1 53C1	5k 7.5k 10k 15k 25k	2.08 2.08 2.08 2.08 2.08 2.08	1.87 1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25 1.25	875-1310 875-1315 875-1320 875-1332	53C1 53C1 53C1 53C1	1.5 meg 2 meg* 2.5 meg 5 meg*	2.08	1.87 1.87 1.87 1.87	1.60 1.60 1.60 1.60	1.25 1.25 1.25 1.25

PURCHASING AGENTS

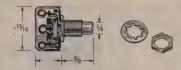
Allied Electronics can supply most of your electronics needs, whether you need a small quantity or production quantities. Write, wire or phone your nearest Allied Electronics office. Our staff will assist you and expedite your order for fastest delivery. See complete list of Allied electronics sales offices on page three.

Midgetrol Controls and Potentiometers

POTS AND CONTROLS

TYPE SU 1/2-WATT MIDGETROLS

Exact replacements in TV sets and other applications. Have $\frac{5}{8}''$ long x $\frac{1}{4}''$ dia. fixed, knurled and slotted phenolic shaft extending $\frac{1}{4}''$ beyond bushing, $\frac{15}{8}''$ dia. Rated $\frac{1}{2}$ -watt. Linear taper. With washer, nut. Av. wt. 4 oz.



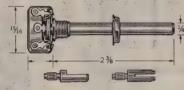
Stock No.	Туре	Ohms	Stock No.	Туре	Ohms
854-6606 854-6614 854-6620 854-6629 854-6635	SU-6 SU-14 SU-20 SU-29 SU-35	1500 5000 10k 25k 50k	854-6641 854-6646 854-6650 854-6667	SU-41 SU-46 SU-50 SU-67	100k 250k 500k 5 meg
1.0		Each 1 59	10-24		Fach 1.26

1-9 .	 Each 1.58	10-24
25-49	 Each .85	50-Up

Each .74

TYPE U 1/2- and 1-WATT METAL SHAFT MIDGETROL CONTROLS

For audio, tone and similar control circuits. Available in a full line of resistances, tapers, and taps. Round, hollow shaft—easily cut to desired length. Two spline-shank knob adapters furnished with each Midgetrol — see illustration right. Taper No. 1: for audio or antenna shunt circuits (½ watt). Taper No. 4: Linear (1. Watt). For voltage control. With nut and lockwasher. 1%6" dia. Brass shaft, 23% long, ½ dia. Less switch (below). 4 oz.



Stock No.	Type	Ohms	Taper	Stock No.	Type	Ohms	Taper
854-7301	U-1	100	4	854-7333	U-33	50k	. 1.
854-7302	U-2	500	4	854-7335	U-35	50k	4
854-7304	U-4	1000	- 4	854-7339	U-39	100k	4 1
854-7308	U-8	3000	4	854-7341	U-41	100k	4
854-7312	U-12	5000	1	854-7344	U-44	250k	1
854-7314	U-14	5000	4	854-7346	U-46	250k	. 4
854-7318	U-18	10k	1	854-7350	U-50	500k	4
854-7320	U-20	10k	-4.	854-7353	U-53	1 meg	1
854-7326	U-26	20k	4	854-7354	U-54	1 meg	4
854-7328	U-28A	25k	1	854-7382	U-82	10 meg	4
854-7329	U-29	25k	4			,	

1-9	Each 1.71	10-24 Each 1.24
25-49	Each .88	50-Up Each .77

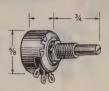
SWITCHES FOR MIDGETROLS (EXCEPT TYPE SU)

"Push-on, stay-on" switches for Midgetrols. Av. wt. 2 oz.	1.2	1 4
854-7426. US-26 SPST Switch. 1-9	50-Up	Each .71
854-7427. US-27 DPST Switch. 1-9 10-24Each .69 25-49Each .46	50-Up	Each .86
854-7428. US-28 SPDT Switch. 1-9		

SERIES 381 1-WATT 5/8"-DIAM. POTENTIOMETERS

- Manufactured to MIL-R-94 Specifications
- 1% Dynamic Noise, 5% Independent Linearity
- Homogeneous, Strain-free Resistance Element
- Mechanical Parts Precision Machine-Finished

Series 381N has plain $^{1}\!4''$ long bushing, $^{1}\!4$ -32 NEF-2A thread, $^{3}\!4''$ long shaft, FMS SD slotted. Series 381NS same but equipped with attached SPST switch rated 1 amp at 125 V AC or DC. Series 381L has $^{3}\!\!4''$ shaft-locking bushing, $^{\prime}\!\!4''$ long shaft, $^{1}\!\!4$ -32 NEF-2A thread, FMS screwdriver slotted shaft. Resistance tolerance: Linear to 500K ohms \pm 10%, above 500K ohms, \pm 20%. Wt. 2 oz.

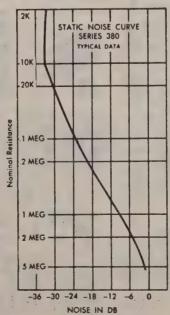


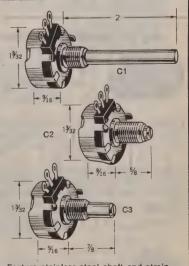
SERIES 381

Stock	. Mfr's	Ohms		EA	СН	
No.	Туре	Onms	1-9	10-49	50-99	100-Up
753-8323 753-8329 753-8335 753-8347 753-8353	381N-100 381N-250 381N-500 381N-1000 381N-2500	100 250 500 1000 2500	2.66 2.66 2.66 2.66 2.66	2.00 2.00 2.00 2.00 2.00	1.71 1.71 1.71 1.71 1.71	1.24 1.24 1.24 1.24 1.24
753-8359 753-8361 753-8367 753-8373 753-8375	381N-5000 381N-10k 381N-25k 381N-50k 381N-100k	5000 10k 25k 50k 100k	2.66 2.66 2.66 2.66 2.66	2.00 2.00 2.00 2.00 2.00	1.71 1.71 1.71 1.71 1.71	1.24 1.24 1.24 1.24 1.24
753-8381 753-8383 753-8387 753-8390 753-8393	381N-250k 381N-500k 381N-1 meg 381N-2.5 meg 381N-5 meg	250k 500k 1 meg 2.5 meg 5 meg	2.66 2.66 2.66 2.66 2.66	2.00 2.00 2.00 2.00 2.00 2.00	1.71 1.71 1.71 1.71 1.71	1.24 1.24 1.24 1.24 1.24
753-8523 753-8559 753-8573 753-8575 753-8587	381NS-100 381NS-5000 381NS-50k 381NS-100k 381NS-1 meg	100 5000 50k 100k 1 meg	4.06 4.06 4.06 4.06 4.06	3.05 3.05 3.05 3.05 3.05 3.05	2.61 2.61 2.61 2.61 2.61	1.89 1.89 1.89 1.89 1.89
753-8593 753-8135 753-8147 753-8153 753-8159	381NS-5 meg 381L-500 381L-1000 381L-2500 381L-5000	5 meg 500 1000 2500 5000	4.06 2.86 2.86 2.86 2.86	3.05 2.14 2.14 2.14 2.14	2.61 1.84 1.84 1.84 1.84	1.89 1.33 1.33 1.33 1.33
753-8161 753-8173 753-8183 753-8190 753-8193	381L-10k 381L-50k 381L-500k 381L-2.5 meg 381L-5 meg	10k 50k 500k 2.5 meg 5 meg	2.86 2.86 2.86 2.86 2.86	2.14 2.14 2.14 2.14 2.14 2.14	1.84 1.84 1.84 1.84 1.84	1.33 1.33 1.33 1.33 1.33

"QUIET ONE" 2-WATT SERIES 380 POTENTIOMETERS

Stock	Туре	Allen Bradley			EAG		
No.	380-	Equiv.	Ohms	1- 9	10- 49	50- 99	100- Up
753-5023 753-5029 753-5035 753-5047 753-5053	C1-100-S C1-250-S C1-500-S C1-1000-S C1-2500-S	JA1N200P101UA JA1N200P251UA JA1N200P501UA JA1N200P102UA JA1N200P252UA	100 250 500 1000 2500	2.50 2.50 2.50 2.50 2.50 2.50	2.00 2.00 2.00 2.00 2.00	1.62 1.62 1.62 1.62 1.62	1.46 1.46 1.46 1.46 1.46
753-5059 753-5061 753-5067 753-5073 753-5075	C1-5000-S C1-10K-S C1-25K-S C1-50K-S C1-100K-S	JA1N200P502UA JA1N200P103UA JA1N200P253UA JA1N200P503UA JA1N200P104UA	5000 10k 25k 50k 100k	2.50 2.50 2.50 2.50 2.50	2.00 2.00 2.00 2.00 2.00	1.62 1.62 1.62 1.62 1.62	1.46 1.46 1.46 1.46 1.46
753-5083 753-5087 753-5129 753-5135 753-5147	C1-500K-S C1-1 Meg-S C2-250-S C2-500-S C2-1000-S	JA1N200P500UA JA1N200P105MA JA1L040S251UC JA1L040S501UC JA1L040S102UC	500k 1 meg 250 500 1000	2.50 2.50 2.75 2.75 2.75	2.00 2.00 2.20 2.20 2.20	1.62 1.62 1.87 1.87 1.87	1.46 1.46 1.69 1.69 1.69
753-5159 753-5161 753-5167 753-5173 753-5175	C2-5000-S C2-10K-S C2-25K-S C2-50K-S C2-100K-S	JA1L040S502UC JA1L040S103UC JA1L040S253UC JA1L040S503UC JA1L040S104UC	5000 10k 25k 50k 100k	2.75 2.75 2.75 2.75 2.75 2.75	2.20 2.20 2.20 2.20 2.20	1.87 1.87 1.87 1.87 1.87	1.69 1.69 1.69 1.69 1.69
753-5183 753-5223 753-5229 753-5235 753-5247	C2-500K-S C3-100-S C3-250-S C3-500-S C3-1000-S	JA1L040S504UC JA1N056S101UA JA1N056S251UA JA1N056S501UA JA1N056S102UA	500k 100 250 500 1000	2.75 2.50 2.50 2.50 2.50	2.20 2.00 2.00 2.00 2.00	1.87 1.62 1.62 1.62 1.62	1.69 1.46 1.46 1.46 1.46
753-5253 753-5259 753-5261 753-5267 753-5273	C3-2500-S C3-5000-S C3-10K-S C3-25K-S C3-50K-S	JA1N056S252UA JA1N056S502UA JA1N056S103UA JA1N056S253UA JA1N056S503UA	2500 5000 10k 25k 50k	2.50 2.50 2.50 2.50 2.50 2.50	2.00 2.00 2.00 2.00 2.00 2.00	1.62 1.62 1.62 1.62 1.62	1.46 1.46 1.46 1.46 1.46
753-5275 753-5283 753-5287	C3-100K-S C3-500K-S C3-1 Meg-S	JA1N056S104UA JA1N056S504UA JA1N056S105MA	100k 500k 1 meg	2.50 2.50 2.50	2.00 2.00 2.00	1.62 1.62 1.62	1.46 1.46 1.46





Feature stainless-steel shaft and strainfree resistance element with 1% dynamic noise and 5% independent linearity. Series 380C1 has 2" round shaft FMS, 4"-long bushing with 36-32-NEF-2A thread; 380C2, 5%" screwdriver slotted shaft FMS, 1½" split locking bushing; 380C3, 7%" screwdriver slotted shaft FMS, 36"-long bushing with 36-32-NEF-2A thread. Resistance tol.: ±10% to 1 meg. Dielectric strength, 1000 VAC. 132" max. dia. x 36" deep. Av. shpg. wt. 2 oz.

MINIATURE 1/4-WATT TRIMMER CONTROLS



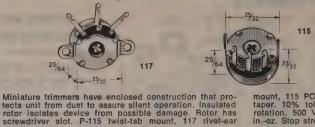


- Vertical or Horizontal Mounting
- Linear Taper 270° Rotation
- . Maximum Rating, 500 Volts

Highly reliable miniature 1/4-watt trimmers designed especially for printed circuits in a wide variety of commercial and industrial applications. Can be used in transistorized or tube circuits—wherever an occasionally adjusted, variable resistance is needed. All have flush, open, crossed slot. Adjustments can be made with either a blade or standard Phillips-type screw driver. All have linear taper; 270° rotation; 500 volts maximum rating. All are 1/4 dameter. Available in two types for vertical or horizontal mounting applications. See price chart below. Wt. 3 oz.

	MT	C-L1	MT	C-L4
Ohms	Stock No.	Type	Stock No.	Type
100 250 500 1000 2000	854-6100 854-6107 854-6113 854-6120 854-6127	MTC12L1 MTC251L1 MTC52L1 MTC13L1 MTC23L1	854-6200 854-6213 854-6220 854-6227	MTC12L4 MTC52L4 MTC13L4 MTC23L4
3000 5000 10k 15k 20k	854-6130 854-6133 854-6143	MTC33L1 MTC53L1 MTC14L1 MTC24L1	854-6233 854-6243 854-6247	MTC53L4 MTC14L4 MTC153L4
25k 50k 100k 180k	854-6153 854-6157 854-6160	MTC253L1 MTC54L1 MTC15L1	854-6253 854-5257 854-6260 854-6267	MTC253L4 MTC54L4 MTC15L4 MTC184L4
250k 500k 1 meg 2 meg 3.5 meg	854-6170 854-6180 854-6183 854-6187 854-6190	MTC254L1 MTC55L1 MTC16L1 MTC26L1 MTC355L1	854-6280 854-6283 854-6287 854-6290	MTC55L4 MTC16L4 MTC26L4 MTC355L4

117





mount, 115 PC mount. Printed circuit terminals. Linear taper. 10% tolerance. Two watts at +55°C. 270° ±5° rotation. 500 VDC max. V, Turning torque is ½ to 10 in.-oz. Stop strength is 4 in.-ibs. Shpg. wt. 2 oz.

Stock No.	Type 117	Ohms	Stock No.	Type P115	Ohms	Stock No.	Type 115	Ohms
745-5000 745-5005	R5R0A R100A	10	745-1600	R5R0A	5			
745-5025 745-5040 745-5010	R250A R500A R101A	25 50 100	745-1715 745-1730 745-1701	R250A R500A R101A	25 50 100			
745-5030 745-5045 745-5015 745-5035 745-5050	R251A R501A R102A R252A R502A	250 500 1000 2500 5000	745-1720 745-1735 745-1705 745-1725 745-1740	R251A R501A R102A R252A R502A	250 500 1000 2500 5000	745-4915	R102A	
745-5030	R103A	10K	745-1710 Ea. 1	R103A	10K	745-4920 Ea75 100-	R103A	10K

101 .394" DIA. COMPOSITION TRIMMERS





Tiny trimmers with PC terminals. Knob slotted for front or rear screwdriver adjustment. X260 mounts perpendicular to PC board; U260 mounts with adjustment knob parallel to PC board. White nylon knob has serrated edge, is slotted for front or rear screwdriver adjustment. Linear taper. Rotation 230° $\pm 5^\circ$. 150 VDC max. Rated 0.1 watt @ 40° C, 0.05 watt @ 70° C. Tolerance $\pm 20\%$.

Stock No.	Type X260	Ohms	Stock No.	Type U260	Ohms
			745-1526	S501B	500
			745-1535	S252B	2500
745-1441.	1.S103B	10K	745-1541	S103B	10K
			745-1547	S253B	25K
			745-1553	S503B	50K
745-1459	S104B	100K	745-1559	S104B	100K
745-1471	S254B	250K	745-1571	S254B	250K
745-1480	S504B	500K	745-1580	S504B	500K
			745-1587	S105B	1 Meg
-24Ea 58	25-49	a46	50-99. Ea38	100-Up	Ea3

201 1/4 -WATT MINIATURE TRIMMERS

Carbon trimmers with PC terminals and snap-in mount. U-201 mounts with adjusting knob parallel to PC board; X-201 with knob perpendicular to board. 19/32" dia. blue ny-lon knuried knob slotted for front and rear adjustment. Linear taper; 260° ±5° rotation; 350 VDC max. +20% tolerance. Composition resistance element. Turning torque: ¾ to 6 inch-ounces. Shpg. wt. 2 oz.

Stock No.	Type U-201	Ohms	Stock No.	Type X-201	Ohms
745-3200	R101B	100	745-3700	R101B	100
745-3325	R251B	250	745-3725	R251B	250
745-3345	R501B	500	745-3745	R501B	500
745-3305	R102B	1000	745-3705	R102B	1000
745-3330	R252B	2500	745-3730	R252B	2500
745-3350	R502B	5000	745-3750	R502B	5000
745-3310	R103B	10k	745-3710	R103B	10k
745-3335	R253B	- 25k	745-3735	R253B	25k
745-3355	R503B	50k	745-3755	R503B	50k
745-3315	R104B	100k	745-3715	R104B	100k
745-3340	R254B	250k	745-3740	R254B	250k
745-3360	R504B	500k	745-3760	R504B	500k
745-3320	R105B	1 Meg	745-3720	R105B	1 Meg
1-24Ea39	25-49	Ea35	50-99Ea3	100-U	p Ea29

U39 2-W "HUMDINGER" CONTROLS

1-9



Mount

Two-watt wirewound controls for above chassis or printed circuit mounting. Have linear taper. Resistance tolerance, ±20%. Slot for screwdriver adjustment. ¾" dia.; 1¼" 1, 1" mtg. ctrs. Insul. mtg. plate. Shpg. wt. 2 oz.

10-24

25-49

50-Up

VALUES AVAIL. PUT "RC" SHOWN HERE IN STK. NO.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
5 8 50 100	05 07 19 23	150 200 300 500	25 27 31 35	1000 1500 2000 3000	47 49 51 55	5000	59

			EA	CH
Stock No.	Type	Ohms	1-24	25-Up
753-30 RC	U39	5 to 5000	1.05	.69



TSA-10 THEATER SPEAKER CONTROL

L-pad control designed for drive-in theaters. Weatherproofed. Steel construction. 10-ohm input imped.; 4-ohm output imped. 11/16" diameter case, ½" long shaft. Mtg. nut. 4 oz.

854-6900.	1-9	Each 2.29	10-24	Each 1.83
24-49		Each 1.21	50-Up	Each 1.05

STEREO AND MONOPHONIC "L" PADS



Type "LL" Pads. For low-impedance stereo-audio. Rated 4 watts DC, 15 watts peak. Have 2 "L" pads on common shaft for adjusting two channels. Size, 1% x21%/".

Wt. 7 oz.

Type "LA" Pads. For level control in monophonic equipment. 4 watts DC, 15 peak. Maintains constant impedance. With 1" bushing. 2 nuts, lock washers. 15%x11%". 7 oz.

Stock	Stock Mfr's Im		EACH				
No .	Туре	Ohms	1-9	10-24	25-49	50-Up	
854-5290 854-5285 854-5280 854-5285	LL8 LL16 L8A L16A	8 16 8 16	9.72 9.72 4.84 4.84	7.77 7.77 3.87 3.87	5.23 5.23 2.61 2.61	4.57 4.57 2.28 2.28	



CONTROL MOUNTING BRACKETS

Mounting brackets with adjustable mounting centers available in two sizes: 21/2" or 13/4" centers.

Stock No.	Type	Description	EACH
854-6410	RB249	Mtg. bracket, mtg, ctrs. 2½"	.08
854-6400	RB248	Mtg. bracket, mtg. ctrs. 1¾"	

POTENTIOMETERS AND ATTENUATORS

4-W CONSTANT-LOAD ATTENUATORS





Widely used to control the level of low-Impedance audio circuits. Rated 4 W contin. DC; 15 W peak audio. Have 2" shafts. %" dia. bushing. Bar knob, 0-10 dial plate. 7 oz. T-pad Altenuators. Present a constant source-impedance as well as constant load. Size, 1%" dia. x 11%".

Ohme Stock No. Type Ohme Stock No.

0111110	O LOOK 1001	1,00	O II III O	Otoba ito:	. , , , , ,
4 8 15	854-6804 854-6806 854-6808	T4 T8 T15	50 500 600	854-6810 854-6815 854-6820	T50 T500 T600
	Ea			4 p	

L-Pad Attenuators. Present a constant load-impedance at all control settings. Size, 15%" dia. x 11%" long.

4 8 15	854-5204 854-5208 854-5215	L4 L8 L15	50 4000	854-5250 854-5275	L50 L4000
	Ea			4	

Controls and Resistor Networks

POTS AND CONTROLS

TYPE MLC 1/2" DIAMETER 1/4 AND 1/8-WATT CARBON CONTROLS

Miniature controls. Linear types rated ¼-watt, audio types rated ¼-watt. Bushing ¼-32. Shaft: steel (except Type MLCN, Nylon), ½" diameter x 1½". "Taper No. 1 for audio, antenna shunts. †Taper No. 4 is linear, for voltage control. Complete with mounting nut. Shpg. wt. 1 oz.



Stock No.	Туре	Ohms	Taper	Stock No.	Type	Ohms	Taper
854-5800	MLC13L	1000	†4	854-5835	MLC54L	50k	†4
854-5845	MLC252A	2500	*1	854-5815	MLC15L	100k	†4
854-5825	MLC53A	5000	. *1	854-5850	MLC254L	250k	†4
854-5830	MLC53L	5000	†4	854-5860	MLCN16A	1 meg	*1
854-5805	MLC14L	10k	†4	854-5865	MLCN16L	1 meg	*1

....Each 1.92 1-9... 25-49.

50-Up Each

TYPE 43C2 2/WATT WIRE WOUND POTS

Wirewound potentiometers available in a wide range of resistances to meet a variety of requirements. Have corrosion-proof finish, moisture and dust-proof construction. Resistance tolerance is ±5%. Linearity is ±2%. Require 11½."

O.D.; 5%" depth behind mounting surface. With 1½" slotted shaft and 3½" diameter, ½" long locking bushing. See price chart below. Shpg. wt. 5 oz.



VALUES AVAIL. PUT "RC" SHOWN HERE IN STK. NO.

Ohms	RC	Ohms	RC	Ohms	RC
20	13	200	27	1500	49
25	15	500	35	5000	59
100	23	1000	47	10k	61

Stock	Mfr's	Resistances	EA	CH
No.	Type	Available	1-24	25-Up
753-32 RC	43C2	20., 25, 100, 200, 500, 1k, 1.5k, 5k, 10k	3.95	2.63

RHEOSTAT

Has open or off position counter-clockwise.

Clock No.	Tuna	Ohms	Ohmo	A		E	ACH		
STOCK NO.	Type		Amps	1-4	5.9	10-49	50-99	100-Up	
854-5606	M6RK	6	.82	1.35	1.00	.91	.84	.75	

RESISTOR NETWORKS



4114R-001, 002





These models are a product of many years of experience in thick film technology. The designs have been fully tested for uncompromising standards of product life and environmental performance.

MODEL 4114R-001 14-PIN 7-RESISTOR

			EACH			
Stock No.	Type 4114R-	Ohms	1- 49	50- 99	100- 499	500- Up
528-0110 528-0114 528-0118 528-0138 528-0142	001-101S 001-151S 001-102S	100 150 1k	1.50	1.25 1.25 1.25 1.25 1.25	.99 .99 .99 .99	.84 .84 .84 .84

MODEL 4114R-002 14-PIN 13-RESISTOR

			EACH				
Stock No.	Type 4114R-	Ohms	1- 49	50- 99	100- 499	500- Up	
528-0210 528-0214 528-0218 528-0222 528-0226	002-101S 002-151S 002-221S	68 100 150 220 330	1.72 1.72 1.72 1.72 1.72	1.45 1.45 1.45 1.45 1.45	1.15 1.15 1.15 1.15 1.15	.97 .97 .97 .97	
528-0230 528-0234 528-0238 528-0242	002-681S 002-102S	470 680 1k 1.5k	1.72 1.72 1.72 1.72	1.45 1.45 1.45 1.45	1.15 1.15 1.15 1.15	.97 .97 .97	

Power Rating: as high as 2% watts. Resistance Tolerance: $\pm 2\%$ Standard. Temperature Coefficient: $\pm 55 ^{\circ}\mathrm{C}$ to

Load Life: 70°C, 1000 hrs. at rated pwr.
Temperature Range: -55°C to +125°C.
MODEL 4116R-001
16-PIN 8-RESISTOR

			EACH				
Stock No.	Type 4116R-	Ohms	1- 49	50- 99	100- 499	500- Up	
528-0322 528-0326 528-0330 528-0334 528-0338	001-331S 001-471S 001-681S	330 470 680	1.58 1.58 1.58		1.03 1.03 1.03	.88 .88 .88	

MODEL 4116R-002

					-	
528-0414						
528-0426						
528-0430						
528-0434						
528-0438	002-102S	1k	1.83	1.52	1.20	1.02

MODEL 4308R-101 8-PIN 7-RESISTOR SINGLE-IN-LINE

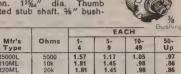
Stock Type No. 4116R-				E/	ACH				
	Ohms	1- 49	50- 99	100- 499	500- Up				
528-0514 528-0522	101-680S 101-101S 101-221S 101-471S		.73 .73 .73 .73	.60 .60 .60	.48 .48 .48	.40 .40 .40			
	101 1025	11/	73	60	48	40			

TYPE R 3-W WIREWOUND CONTROLS

	-	Ohms	EACH				
Stock Mfr's Type			1- 4	5- 9	10- 49	50- Up	
854-6315 854-6315 854-6325 854-8336 854-6335	R20L R25L R50L R100L R250L	20 25 50 100 250	1.58 1.58 1.58 1.58 1.58	1.26 1.26 1.26 1.26 1.26	.85 .85 .85 .85	.74 .74 .74 .74 .74	
854-6340 854-6345 854-6350 854-6355 854-6360	R500L R1000L R1500L R2500L R3000L	500 1000 1500 2500 3000	1.58 1.58 1.58 1.58 1.58	1.26 1.26 1.26 1.26 1.26	.85 .85 .85 .85	.74 .74 .74 .74	

For use as voltage dividers, blas controls, Linear taper, 900 VAC insulation between resistance element, chassis. 290° rotation. 12%4" dia. Thumb 290° rotation. 12¾″ dia. knurled, slotted stub shaft. ¾″

10k



TYPE MRB 3-W WIREWOUND CONTROLS

	-	Ohms	EACH				
	Mfr's Type		1-	5- 9	10- 49	50- Up	
854-5900	MR10B	10	1.50	1.20	.80	.70	
854-5910	MR100B	100	1.50	1.20	.80	.70	
854-5915	MR250B	250	1.50	1.20	.80	.70	
854-5925	MR1000B	1000	1 50	1.20	.80	.70	
854-5935	MR5000B	5000	1.50	1.20	.80	.70	
854-5940	MR10KB	10k	1.72	1.38	.93	.81	

Bushing: %"-32x¼". Shaft: ¼" dia. x 1¼" long. 3 watts at 40°C. Rotation: 250° mechanical; 248° electrical. Tolerance: ±20%. Voltage breakdown: 900 volts AC rms. Av. shpg. wt. 2 oz.



TYPE M 4-W WIREWOUND CONTROLS

			EACH				
Stock No.	Mfr's Type	Ohms	1-	5. 9	10- 49	50- Up	
854-5415	M15PK	15	1.96	1.46	1.31	1.22	
854-5425	M25PK	25	1.96	1.46	1.31	1.22	
854-5450	M50PK	50	1.96	1.46	1.31	1.22	
854-5465	M100PK	100	1.96	1.46	1.31	1.22	
854-5470	M200PK	200	1.96	1.46	1.31	1.22	
854-5475	M400PK	400	1.96	1.46	1.31	1.22	
854-5480	M500PK	500	1.96	1.46	1.31	1.22	
854-3510	M1MPK	1000	1.96	1.46	1.31	1.22	
854-5525	M2.5MPK	2500	1.96	1.46	1.31	1.22	
854-5530	M3MPK	3000	1.96	1.46	1.31	1.22	
854-5535	M5MPK	5000	1.96	1.46	1.31	1.22	
854-5440	M10MPK	10k	1.96	1.46	1.31	1.22	

For use as bias controls, voltage dividers. Linear taper. Power handling cap., 4 W. Arm insulated from shaft, 275° rotation. Knurled $\frac{1}{4}$ " shaft is $\frac{3}{8}$ " I., screwdriver slot. "M" shaft, hollow — accepts extens. shafts, bushings. $\frac{1}{2}$ " dla. x $\frac{3}{8}$ " d. Mount in $\frac{3}{8}$ " hole. Tol. $\pm 10\%$. Av. shpg. wt. 4 oz.



854-5545	M15MPK	15k	2.14	1.59	1.43	1.33
854-5555	M25MPK	25k	2.14	1.59	1.43	1.33
854-5560	M50MPK	50k	2.54	1.88	1.69	1.57
854-5565	M100MPK	100k	3.59	2.66	2.30	2.22

TYPE VW 5-W WIREWOUND CONTROLS • Miniature Size

	N. P. O.					
				EA	CH	
Stock No.	Mfr's Type	Ohms	1-	5- 9	10- 49	50- Up
854-7601 854-7602 854-7605 856-7610 854-7615 854-7620 854-7625	VW-1 VW-2 VW-5 VW-10 VW-15 VW-20 VW-25	1 2 5 10 15 20 25	2.34 2.34 2.34 2.34 2.34 2.34 2.34	1.87 1.87 1.87 1.87 1.87 1.87	1.27 1.27 1.27 1.27 1.27 1.27 1.27	1.10 1.10 1.10 1.10 1.10 1.10 1.10
854-7640 854-7650 854-7660 854-7700 854-7720 854-7725	VW-40 VW-50 VW-60 VW-100 VW-200 VW-250	40 - 50 60 100 200 250	2 34 2 34 2 34 2.34 2.34 2.34	1.87 1.87 1.87 1.87 1.87	1.27 1.27 1.27 1.27 1.27 1.27	1.10 1.10 1.10 1.10 1.10 1.10
854-7730 854-7750 854-7753 854-7757	VW-300 VW-500 VW-1k VW-1P5k	300 500 1000 1500	2.34 2.34 2.34 2.42	1.87 1.87 1.87 1.93	1.27 1.27 1.27 1.31	1.10 1.10 1.10 1.14

• ±5% Tolerance

Only 44'' dia., $7_{16}''$ deep. Bushing: 4x*4'' dia., Igth. 44'' plain round shaft, 2'' long from mtg. surface. All have linear taper; $\pm 5\%$ tolerance; 305° mechanical rotation, 275° electrical rotation. Av. shpg. wt. 4 oz.

Stock No.	Mfr's Type	Ohms	EACH				
			1-	5- 9	10- 49	50- Up	
854-7760 854-7763 854-7773 854-7777 854-7783 854-7787	VW-2K VW-2P5K VW-5K VW-10K VW-20K VW-25K	2000 2500 5000 10k 20k 25k	2.42 2.42 2.42 2.55 2.66 2.79	1.93 1.93 1.93 2.04 2.12 2.23	1.31 1.31 1.31 1.37 1.43 1.51	1.14 1.14 1.14 1.20 1.25 1.31	

SERIES 760 DUAL-INLINE CERMET RESISTOR NETWORKS

- 11/2 -watt Capacity
- Low Height Profile
- 100" Lead Spacing
- High Overload Capability

Resistance tolerance: ±2%. Power Rating: 1½ watts @ 70° per module. Temperature coefficient: Overall, ±300 ppm/° C; TC tracking, 50 ppm/° C. Substrate material: alumina. Lead material: solder coated amziro. Lead strength: 5 lb. pull. Load Life: 0.1 W per resistor at 70° C for 1000 hours. Unlimited applications of the period of the control of the con tions in industrial, military, consumer and institu-tional procedures where space limitations are the utmost requirements. See diagrams at right for applications.

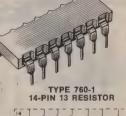
760-1 13-RESISTOR NETWORKS

Stock No	Mfr's Type	Ohms	Stock No.	Mfr's Type	Ohm
745-7000	760-1-100	100	745-7040	760-1-1.5K	1.5K
745-7005	760-1-150	150	745-7045	760-1-2K	2K
745-7010	760-1-220	220	745-7050		2.2K
745-7015	760-1-330	330	745-7055	760-1-3.3K	3.3K
745-7020	760-1-470	470	745-7060	760-1-4.7K	4.7K
745-7025	760-1-500	500	745-7065	769-1-6K	6K
745-7030	760-1-680	680	745-7075	760-1-10K	10K
745-7035	760-1-1K	1K	745-7080	760-1-15K	15K

1-49	Each 2.30	50-99Each 1.84
100-499	. Each 1.53	500-UpEach 1.12

760-3 7-RESISTOR NETWORKS

1-49	Each		50-99 500-Up	Eac	h 1.50
745-6040	760-3-350 760-3-1K	1 K	745-6075	760-3-15K	15K
745-6020 745-6025	760-3-220 760-3-330	220 330	745-6070	760-3-10K	10K
745-6015	760-3-150	150			
745-6010	760-3-110	110	745-6055	760-3-3.3K	3.3K
745-6000 745-6005	760-3-68 760-3-100	68 100	745-6045 745-6050	760-3-1.5K 760-3-2.2K	1.5K 2.2K
	760-3-68	68	745-6045	760-3-1.5K	





Applications: MOS/ROM pull-up/pull-down; open collector pull-up; "Wired OR" pull-up; power driver pull-up; high speed parallel pull-up; TTL unused gate pull-up and input

TYPE 760-3 14-PIN 7 RESISTOR



Applications: "Wired OR" pull-up; power driver pull-up; power gate pull-up; line termination; long-line impedance balancing; LED current limiting; ECL output pull-down resistors

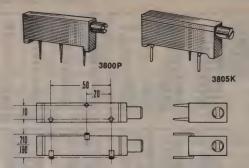
Trimmer and Multi-Turn Potentiometers

MICROPOT®COMMERCIAL TRIMMER POTENTIOMETERS

TYPE 3800 WIREWOUND MICROPOT TRIMMERS

Commercial 3/4" rectangular style has solvent resistant nylon case with semi-transparent top — makes element and contact carrier fully visible for approximate settings. Suffix P indicates 0.100" pin spacing; Suffix K indicates new 0.200" pin spacing. Power rating, 1 watt at 40°C. Temperature range, —65/C to +125°C. Resistance tolerance, ±10%. Resolution: 22 to 1.78%. Values available: 100, 200, 500, 1000, 5000, 10k and 20k—See Table A, below right. Shpg. wt. 2 oz.

Stock No.	Mfr's		EA	CH	
	Type	1-9	10-24	25-49	50-Up
714-77RC	3800P	2.55	2.04	1.46	1.39
714-74RC	3800K	2.55	2.04	1.46	1.39



SERIES 3805 CERMET MICROPOTS

Commercial ³/₄" rectangular style Cermet-element trimmer offers infinite resolution. 15-turn shaft adjustment. Carbon-tipped precious metal contact reduces CRV to a minimum and enhances rotational life. Solvent-resistant nylon case. 0.200" pin spacing. Resistance tolerance: ±10%. Temperature range, —55°C to +125°C. Power rating, ³/₄ watt at 40°C derated to zero at 125°C. Dielectric strength, 900 volts rms at room temperature. Shaft torque, 8.0 oz.-in. maximum. Values available: 2000, 20k, 50k, 100k, 500k—see Table A. Av. shpg. wt. 2 oz.

Stock	Mfr's		CH		
No.	Type	1-9	10-24	25-49	50-Up
714-82RC	3805K	2.88	1.90	1.64	1.53

TYPE 992P WIREWOUND MICROPOT TRIMMERS



Commercial 22-turn trimmer with RT11 terminal style. Has ratcheting clutch, shift-proof wiper. Meets MIL-STD-202 steady-state humidity specs. Goldplated PC pins. Resistance Tolerance: \pm 10% to 100 ohms, \pm 5% 100 ohms and over. Operating Temperature: \pm 55°C to \pm 105°C. 2 oz.

Stock	Mfr's	Values, Ohms		EACH	
No.	Туре	(See Table A)	1-9	10-24	25-Up
714-42RC 714-42RC	992P 992P	100, 500, 1k, 2k, 5k, 10k 20k	4.68 6.50	3.74 5.76	2.46

VALUE TABLE A

To complete Allied Stock No., insert Resistance Code (RC) shown opposite Ohms in place of RC in Stock No. Each listing states which values are available for that particular series.

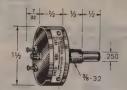
Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
100	20	1000	35	10k	45	100k	65
200	25	2000	38	20k	50	500k	75
500	30	5000	40	50k	60		

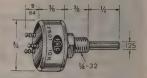
TYPES 7501, 151 PRECISION TRIMMERS

- Panel Mount Rotary Trimmers
- Designed for Severe Environmental or High Temperature Conditions
- Easy-wrap Rear Terminals Install Simply in Close Areas

Precision trimmers are single-turn. Can be used for a wide variety of military, industrial and commercial applications. Environmental specifications meet or exceed Military Specs MIL-R-39002. Case material is nickle-plated brass. Resistance tolerance, \pm 5%. Torque, 2 ounce-inches maximum. Has fungus resistance to all non-nutrient materials. Vibration: 20g from 10 to 2000 cps. Withstands up to 50g's of shock. Thermal shock: 5 cycles from -65° C to $+125^{\circ}$ C. Rotation life: 10,000 rotations. Load life: 1000 hours at rated power. All tolerances +.010 unless otherwise stated. 7501 has $\frac{1}{4}$ % bushing, $\frac{1}{4}$ % shaft. See Table B below on how to order.

Specs.	Type 7501 3/4-in. Dia.	Type 151 1½-in. Dia.
Power Rating at 40°C	21/4 watts	3½ watts
Temperature Range	-55°C to +150°C	—55°C to +125°C
Derates to 0	150°C	125°C
Resistance Range (Ohms)	50 to 75K	100 to 100K
Linearity	±1% :	±0.5%
Insulation Resistance	1000 meg. minimum	1000 meg. minimum
Mechanical Rotation	Continuous (Stops Avail.)	Continuous (Stops Avail.)
Electrical	345°/±5%	350°/±5°
Weight	1 oz.	2 oz.





SINGLE TURN 151

SINGLE TURN 7501

Stock Mfr's		Resistance Values (Ohms)	EACH			
No.	Type	See Table B	1-9	10-24	25-49	50-Up
822-94RC 822-28RC	7501 151		11.69 13.36	9.94 11.50	9.31 11.00	8.68 10.50

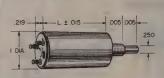
TYPES 8400, 8403 POTENTIOMETERS



Tol., ±5%. ½" dia. Temp. range, —55 to + 105°C. TC. ±70 ppm/°C. Torque, 1 oz.-in. max. Type 8400. 10-turn pot. Pwr. watts 3@70°C ambient. Projects 1½" behind panel. Screwdriver adj. slot. Ribbon welded, multi-wire terminals. Type 8403. 3-turn pot. Pwr. watts 2@40°C. Projects ¾" behind panel. Screwdriver adj. slot. Turret-type, molded-in terminals, golded-plated. Wt. 4 oz.

Stock Mfr's		Std. Res. Ohms	EACH				
No.	Туре	See Table B	1-9	10-24	25-49	50-Up	
822-96RC	8400	100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k	11.75	9.40	7.84	6.25	
822-97RC	8403	100, 200, 500, 1k, 5k, 10k, 30k	13.13	10.50	9.00	8.00	

TYPE 7400 MULTI-TURN POTENTIOMETER



Precision wirewound potentiometer is 3/4" in diameter. Rotary type. Molded rear terminals save panel space. Wrap-around connectors. Shafts mate with standard counting dials. 100 oz.-inch stop system prevents damage. Tolerance. ±5%. Pwr. watts 3/40°C. Temp. range, -65/+125°C. Coef., ±70 ppm/°C max. Independent linearity, ±0.25%. Turns, 10. Rotation, 3600° (+6°-0°). Meets or exceeds MIL-R-12934. Screwdriver slot.

Stock Mfr's	Mfr's			EACH				
No.	Туре	See Table B	1-9	10-24	25-49	50-Up		
822-92RC	7400	1k, 5k, 10k, 20k, 50k, 100k	13.13	10.50	9.00	8.00		

TYPE 1000 10-TURN POTENTIOMETER



Metal cased. 1-pc. bushing, front header of nickle-plated brass. Moisture & dust-resistant. Oper. temp. -55 to $+125^{\circ}\mathrm{C}$. Pwr. watts 3 @ $40^{\circ}\mathrm{C}$. Res. tol., $\pm 5\text{-}5/6$; linearity, $\pm 0.5\%$. Max. starting and running torque, 2 oz. in. 1 dia. x $11\frac{1}{2}$ % long. $\frac{1}{4}$ % dia. shaft extends $\frac{1}{2}$ % beyond $\frac{3}{6}$ % 22 bushing. Bushing is $\frac{1}{6}$ % long. Gold-plated terminals. Separate electrical and mechanical sections. Shpg. wt. 4 oz.

Stock	Mfr's	Std. Res. Ohms		EA	CH	
No.	Туре	See Table B	1-9	10-24	25-49	50-Up
822-85RC	1000 ,-	🤲 1000, 25k	16.75	15.30	14.20	12.40

TYPE 7500 10-TURN POTENTIOMETER



Metal encased. 1-pc. bushing and front header of nickel-plated brass. Moisture and dust-resistant. Separate electrical and mechanical sections. Gold-plated terminals. Maximum starting and running torque, 2 oz. in. Oper. temp. -55° C to $+125^\circ$ C. 3-watt pwr. rating at 40°C ambient. $\frac{3}{4}''$ dia. x $1\frac{3}{4}\frac{1}{2}''$ long. Res. Tol. $\pm 5\%$. $\frac{1}{4}''$ dia. shaft extends $\frac{1}{2}\frac{1}{2}''$ beyond $\frac{3}{4}$ - $\frac{3}{2}$ x $\frac{1}{2}\frac{1}{2}$ long bushing. Shpg. wt. 4 oz.

Stock	Mfr's	Std. Res. Ohms		EACH			
No.	Туре	See Table B	1-9	10-24	25-49	50-Up	
822-93RC	7500	250, 1000, 10k, 25k	16.70	15.30	14.20	12.40	

TABLE B—IMPORTANT ORDERING INFORMATION

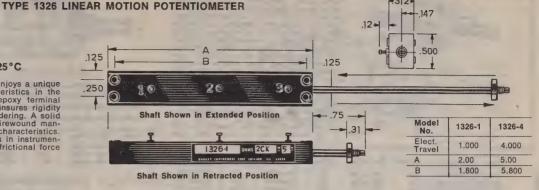
To Order: Complete the Stock Number shown by placing the designated Resistance code for Ohms Value where RC appears in the Stock Number. Each particular listing shows what ohm values are available.

Value	RC	Value	RC	Value	RC	Value	RC
100	13	1k	29	10k	41	50k	53
200	20	2k	32	20k	44	100k	59
250	23	2.5k	35	25k	47		
500	26	5K	38	30k	50		

• Total Resistance Tolerance ±5%

• Temperature Range: -55°C to 125°C

The 1326 linear motion wirewound potentiometer enjoys a unique position. It combines the best electrical characteristics in the smallest size at the lowest cost. An asbestos-epoxy terminal strip, riveted to an anodized aluminum housing, insures rigidity as well as terminal solidity during production soldering. A solid precious metal contact engaging the precision wirewound mandrel produces exceptional linear and resolution characteristics. For applications where forces are limited, such as in instrumentation, the 1326 is ideal because of its low shaft frictional force as well as small size and light weight.



MODEL 1326-1 ONE-WATT POTENTIOMETER

Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms
606-1015 606-1025	100 ° ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′	606-1030 606-1040	1K 10K	606-1045 606-1050	10K 20K
Model 1326-1. 1	-9Ea. 45.25	10-24Ea. 36	5.20 25-99	Ea. 28.05 100-L	Jp Ea. 23.71

MODEL 1326-4 FOUR-WATT POTENTIOMETER

Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms
606-2015 606-2025 606-2030	500 1K 5K	606-2040 606-2045 606-2050	10K 20K 25K	606-2060	50K

Model 1326-4, 1-9. Ea. 49.25 10-24. Ea. 39.40 25-99. Ea. 30.14 100-Up. Ea. 25.60

ELECTRICAL AND MECHANICAL CHARACTERISTICS

	Model 1326-1	Model 1326-4
Total Resistance Tolerance Theoretical Resolution (Inch) Independent Linearity	±5% .006 to .001 ±1.2% to ±.2%	
Theoretical Electrical Travel (Inches) Theoretical Electrical Travel Tolerance (Inches) Total Mechanical Travel (Inches) Temperature Coefficient (PPM/°C)	1.000 ±.010 1.10	4.00 ±.010 4.10
Operating Temperature Range Power Rating (Watts at 40°C) Dielectric Strength (Volts, RMS for 60 Sec.)	-55° to 125°C	-55° to 125°C
Life Expectancy (Cycles at 60 In./Min.) Shaft Frictional Force (Ounces) Weight (Ounces)	500,000 4 3	500,000 4 6
Bearings	Nylon	Nylon

MULTI-TURN POTS -

10-TURN, 2-WATT SCOT POT SERIES

Series 4201B. This 34". long, 7%" diameter potentiometer combines economy and compact size with precision, ten-turn wirewound performance. Rated 2 watts at 70°C. Temperature Range: -55°C

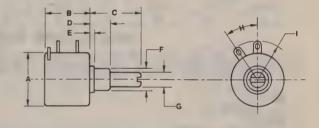
to $+125\,^{\circ}$ C. Independent linearity $\pm\,0.25\,^{\circ}$ C. TCR: $\pm\,20$ PPM/°C max. Resolution: 100 ohms, 0.051%, 100K ohms, .008%. Noise: 100 ohms max. Rotation life: 1.0 x 10 $^{\circ}$ Revolution. Wt. 2 oz.

Stock No.	Res., Ohms	Stock No.	Res., Ohms
714-9620	100	714-9640	5000
714-9625	200	714-9645	10k
714-9630	500	714-9650	20k
714-9635	1000	714-9660	50k
714-9638	2000	714-9665	100k

1-9....Ea. 3.99 10-24....Ea. 3.85 25-49..., Ea. 3.76 100-249...Ea. 3.29 250-Up...Ea. 3.19 50-99...Ea. 3.65

A	В	С	D	E					
.860	.735	.781	.297	.057					
, F	G	. н	1						
.404	.2495	30°	.620						

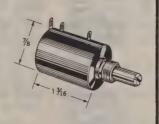
DIMENSION CHART (in inches)



%" DIA. 10-TURN 2-W MICROPOT

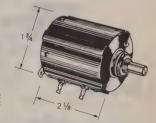
Series 4101B. High-performance wirewound Micropot has backlash-free wiper drive mechanism. Precious metal wiper and pickup contacts. Resistance element welded directly to gold-plated terminal lugs. Rated 2 watts @ 40°C for 1000 hours. Tol., ±5%. Temp. range, -55° to +125°C. Rotational life, 200,000 revol. Starting torque 1.5 oz. in.; running torque, 1.0 oz. in Values: 100, 200, 1000, 2000, 5000, 10k, 20k, 50k, 100k ohms. Av. shpg. wt. 3 oz. See Table A for ordering information. Av. shpg. vinformation.

714-90RC. 1-9...Ea. 13.02 10-24....Ea. 6.45 25-49....Ea. 6.20 50-Up....Ea. 5.90



13/4" DIA. 10-TURN 5-W MICROPOT

Series 205. Wirewound linear; resistance proportional to shaft rotation. 0.1% zero-based linearity. Extra long resistance element for up to 64% better resolution. Anti-backlash mechanism. Rated 5 W @ 40°C. Tol., ±3%. Temp. range, —55 to +105°C. Rotational life, 1,000,000 revs. Torque: starting, 3 oz. in.; running, 1.5 oz. in. Values: 100, 1000, 5000, 10k, 20k, 50k, 100k. Av. shpg. wt. 5 oz. See Table A for ordering information. 714-40RC. 1-9... Ea. 24.29 10-24... Ea. 18.42 25-49... Ea. 17.48 50-Up... Ea. 12.48



7/8" DIA. 10-TURN 3-W MICROPOT

Series 2151B. Wirewound resistance element inside high temp. molded phenolic case. Wiper drive mechanism eliminates backlash. Terminations welded to gold-plated terminal lugs. 1/4" common shaft assures unit-to-unit indexing accuracy. Rated 3 watts @ 40°C. Tolerance, ±3%. Temperature range, -55 to +105°C. Rotational life, 2,000,000 revolutions. Values: 100, 500, 1000, 500, 100 k, 30k, 50k, 100k. Wt. 5 oz. See Table A below for complete ordering information.

714-45RC. 1-9...Ea. 13.14 10-24....Ea. 9.97 25-49....Ea. 9.45 50-Up....Ea. 8.92



113%" DIA. 10-TURN 5-WATT MICROPOT

11%" DIA. 10-TURN 5-WATT MICROPOT

Series 2201B. Precision, extra-long life pot has wirewound element wrapped around center core under maximum tension for absolute wiper-to-element concentricity. Dual brass bearing shaft support. Anti-backlash carrier. Rated 5 watts @ 40°C. Tol., ±3%, except *, ±5%. Temp. range, —55 to +105°C. Rotational life, 5,000,000 revol. Values: *25, 100, 500, 1000, 5000, 10k, 20k, 50k, 100k, *200k. Av. shpg. wt. 5 oz. See Table A for complete ordering information.
714-47RC. 1-9... Ea. 13.14 10-24... Ea. 9.97 25-49... Ea. 9.45 50-Up... Ea. 8.92



TABLE A - ORDERING INFORMATION

To complete the Allied Stock Number, insert the Numeric Code shown in parenthesis below, opposite desired value, in place of RC in Stock Number. For example, Stock Number 714-9020 — Series 4101B at 100 ohms. Only values shown in series listings are available.

Value	RC	Value	RC	Value	RC
25	(13)	1000	(35)	30k	(57)
50	(15)	2000	(38)	50k	(60)
100	(20)	5000	(40)	100k	(65)
200	(25)	+ 10k	(45)	200k	(67)
500	(30)	20k	(50)		

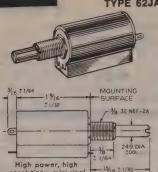
TEN-TURN MICROPOT

Series 4301B. Features metal shaft and bushing. High temperature molded phenolic case. Linearity zero backlash. Resistance tolerance, 5%. 78" dia., 1,455 W, -55°C to +105°C, 3 watts. Values available: 25, 50, 200, 5k, 10k, 100k. Av. shgg. wt. 4 oz. See Table B for complete ordering information.

714-93RC. 1-9...Ea. 13.02 10-24....Ea. 6.45 25-49.....Ea. 6.20 50-Up....Ea. 5.90



TYPE 62JA MINIATURE 10-TURN POT



Precision 10-turn potentiometers feature high power dissipation, high resolution. Rated power dissipation: 2 watts @ 25°C; derated to 0 @ 85°C. Dielectric strength, 1000 VAC. Absolute linearity, ±0.25%, except 100, 200 and 250 ohm units—±0.5%, except 100, 200 and 250 ohm units—100 meg. Life expectancy of 100,000 shaft revolutions. Bearing type: sleeve bushing. Construction, collector roll of gold-plated alloy; high conductivity, low noise contact; 4-finger carrier to reduce wobble. Tough, thermal plastic case, contact carrier and drum; slip rings with two contact fingers at 180° position for positive contact. Overall length, 21½° with ¾° mig. bushing, ¾-32 threaded. Shafts measure ¼" in diameter by ¾-10 long. Av. shpg. wt. 1½ oz.

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
100 200	753-4123 753-4127	500 1k	753-4135 753-4147	5k 10k	753-4159 753-4161	30k 50k	753-4169 753-4173
250	753-4129	2k ,.	753-4151	20k	753-4165	100k	753-4175

PIXIEPOT® WIREWOUND 10-TURN POT



- Precision 10-Turn Potentiometer is Only %" Dia. by 34" Long
- Shaft Life of 500,000 Revolutions
- Resolution Comparable to Larger Pots

MODEL 3253. Features high impact plastic case for long-term durability. Enclosed interlocking design, welded terminations. Has ½" stainless steel slotted shaft, anti-rotat, pin. Act. elec. travel, 3600° (+10°, -0°); total mech. travel, 3600° (+15°, -0°). Resis. tol., ±5%. Power rating: 2 watts @ 20°C, 0 @ 85°C. End resis. c. 0.25% of total resis. or 0.1 ohm, whichever is greater. Dielectric strength; 1000 V rms. Insulation resistance: 1000 megohms min. @ 500 VDC max. Torque, 1.0 oz.-in. meximum. Stop strength, 50 oz.-in. Temp. range, -25 to +85°C. Vibration, 10G to 2000 Hz. 3%"-32 bushing mnt. Wt. 0.5 oz.

Unms	STOCK NO.	Unms	STOCK NO.	Unms	STOCK NO.	Unms	STOCK NO.
100	530-4005	1000	530-4025	10k	530-4040	100k	530-4070
200	530-4010	2000	530-4030	20k	530-4050		
500	530-4025	5000	530-4035	50k	530-4060		
		EACH (P	rices for one	resistano	e value only		

EACH	(Prices for one	resistance valu	e only)
1-9	10-24	- 25-49	50-Up
7.25	5.80	4.50	4.35

TYPE HD-150 10-TURN LABORATORY/INSTRUMENT POTS



Highly stable, critical adjustment control. Power 5 watts @ 40°C ambient. Operating Temp: -55° to $+150^\circ$ C. Resistance Tol: \pm 3%. Patented metal-to-metal stop system with mounting bushing. Torque, 2 oz. in max. Phenolic case, $11/2^{\prime\prime}$ dia. x 2" long. 1/4" dia. nickel-plated brass shaft extends 1/2" beyond 1/2" 1/2 x 1/2" long bushing. Average shipping weight: 4 ounces.

Stock	Linearity	Std. Res. Ohms	1	EA	СН	
No.	See Table A	1-9	10-24	25-49	50-Up	
822-02RC 822-01RC	±0.25% ±0.1%	500, 1k, 2k, 5k, 10k, 200k 1k, 10k, 50k	11.69 15.03	9.94 12.70	9.00 11.50	8.50 11.00

TYPE 5000 10-TURN POTENTIOMETER



Metal cased, 1 piece bushing and front header of nickel-plated brass. Gold-plated terminals. Moisture, dust resistant. Power $1\frac{1}{2}$ watts @ 40°C ambient. $\frac{1}{2}$ " dia. x $1\frac{1}{2}$ " L. Res. Toi: $\pm 5\%$, linearity, $\pm 0.5\%$. $\frac{1}{4}$ " shaft extends $\frac{1}{2}$ " beyond $\frac{3}{6}$ - $\frac{32}{6}$ x $\frac{1}{2}$ " bushing. Maximum starting and running forque, 2 ounce inch. Operating Temperature: $\pm 0.5\%$ 0 to $\pm 1.25\%$ 0. Average shipping weight: 4 ounces.

Stock No.	Mfr's	Std. Res. Ohms	EACH 🚉				
No.	Туре	See Table A	1-9	10-24	25-49	50-Up	
822-89RC	5000	500, 1000, 5k, 10k	15.87	13.50	12.75	12.00	

TABLE A - RESISTANCE CODE FOR POTENTIOMETERS ABOVE

Ohms	RC	Ohms	RC	Ohms	RC a	Ohms	RC .	Ohms	RC	Ohms	RC	Ohms	RC
- 500	26	1k ' '	29	2k	32	5k	38	- 10k	41	50k	53	200k	68

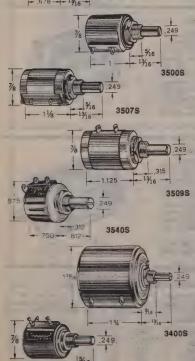
MULTI-TURN BUSHING-MOUNT POTENTIOMETERS

Precision pots in high temperature, moisture resistant plastic housings. Outstanding resistance to humidity. Exceed humidity cycling requirements of MIL-R-12934. Silverweld® terminations eliminate vulnerable single wire termination. Standard 1/4" shafts.

 $\frac{3}{8}$ -32 UNEF bushings. Temperature coefficient of wire: \pm 20 ppm/°C. Insulation resistance at 500 VDC, 1000 megohms minimum. (*) Plastic bushing and shaft. (†) Metal bushing and shaft. (‡) Deep shaft slot.

151--51

WIREWOUND POTENTIOMETERS
%" DIAMETER



3501S

716

3520S

Stock	Mfr's	Dia.		Res.	Ind.	Rota-	Life	Power	Temp.	Std.		EA	СН	
No.	Type	in.	Turns	Tol.	Lin.	tion	Revolu- tions	Watts @ °C	Range	Res. Ohms	1-4	5- 9	10- 24	25- Up
529-70RC	3520S	7/8	5	±3	±0.3	1800°	1000000	1.5/70°	-65/+125	1k, 10k	15.78	13.50	12.82	12.15
529-65RC	3500\$	7/8	10	±3	±0.2	3600°	2000000	2/70°	-65/+125	50, 100, 200, 500, 1k, 2k, 5k, 10k, 20, 50k, 100k	11.28	10.00	9.50	9.00
529-65RC	3500S									200k	21.43	19.00	18.05	17.10
529-85RC	3500S	-77		-						500k	31.57	28.00	26.60	25.20
529-76RC	3507S-1*	7/8	10	±5	±0.25	3600°	2000000	2/25°	−55/ +105	200, 500, 1k, 2k, 10k, 100k	11.75	9.40	7.50	6.60
529-76RC	3507S-3‡		1		٠,				n, .	250k	18.15	16.50	14.52	13.74
529-09RC	3509S-1*	7/8	10	±5	士0.25	3600°	1000000	2/70°	−55/ +105	500, 1k, 2k, 5k, 20k, 100k	10.05	8.04	5.95	5.36
529-68RC	3509 S-8 †	* 23	* · 6:	, ;	į					200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k	11.30	9.04	6.70	6.03
528-94RC	3540S	7/8	.10	±5	±0.25	3600°	1000000	2/70°	-55/ +125	500, 1k, 2k, 5k, 10k, 50k, 100k	9.38	7.50	5.65	5.35

11%" DIAMETER

529-59RC	34008	113/6	10	±3	±0.15	3600°	2000000	5/40°	65/+105	100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k, 200k	11.28	10.00	9.50	9.00
529-59RC	3400S									500k	21.43	19.00	18.05	17.10

CONDUCTIVE PLASTIC ELEMENT - 1/8" DIAMETER

Unique Infinitron® conductive plastic element provides essentially infinite resolution. Output smoothness: 0.1% standard. Exceeds moisture resistance requirements of MIL-R-39023. Exclusive termination technique insures low end resistance and definite effective electrical angle.

529-66RC	3501S	7/8	10	±10	± 0.5	3600°	4000000	2/70°	-55/+105	1k, 2k, 5k, 10k, 20k, 50k, 100k, 500k	16.92	15.00	14.25	13.50
529-66RC	3501S	3			1		1 1 TH			1 meg	39.46	35.00	33.25	31.50

TO COMPLETE STOCK NUMBER SEE NEXT PAGE

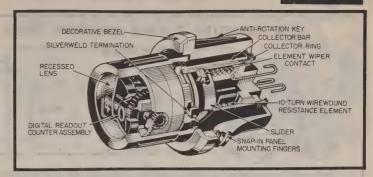
Ten-turn Readout Potentiometers



KNOBPOT® POTENTIOMETERS

- Premounted and Prephased Assembly for Guaranteed Accuracy
- Meet MIL Standards for Humidity, Vibration and Shock
- Requires Less Front Panel Space than Many Dials Alone

Precision ten-turn wirewound Knobpots provide potentiometer and readout in one compact, dependable package. Careful phasing of readout to potentiometer insures high repeatability. Choice of size and of two highly-readable styles—clock face and digital readout. Electrical ammechanical angle, 3600°. Absolute minimum resistance. 1 ohm or 0.1%, whichever is greater. Dielectric strength and humidity to MIL-STD-202. Vibration and shock to MIL-R-12934. Load life, 1000 hours.



KNOBPOTS WITH CLOCK-FACE

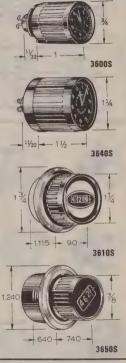
3600 and 3640 have %-32 bushing, 1/32" long. 3 Silverweld terminations. With lockwasher and nut.

Canala	886-1-	Dimensions	Res.	Power	Temp.		Life	Std.		EA	CH	
Stack No.	Mfr's Type	Dia. x L. in Front of Panel Inches	Tol.	Watts @ °C	Range °C	Accuracy	Revolu- tions	Res. Ohms	1-4	5- 9	10- 24	25- Up
529-72RC	3600S	% x 1	±5	1.5/25°	-65/+85	±0.5%	200000	1k, 2k, 5k, 10k, 50k, 100k	21.98	19.80	19.32	17.54
529-72RC	3600S	C. S.C. Carlotte pro						250k	32.46	29.27	28.57	25.92
529-73RC	36408	1¼ x 1½	±3	2.5/25°	-65/+85	±0.1%	200000	100, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k, 250k	24.02	23.00	21.30	19.17

KNOBPOTS WITH DIGITAL READOUT

3610 has snap-in mounting cup, requires 1" dia. panel hole. 3650 has mounting clamp, requires 1% panel hole. Overall length, 3610, 1.38"; 3650, 2.47". Silverweld termination.

		Dimensions	Res.	Power	Temp.		Life	, at Std.		EA	СН	
Stock No.	Mfr's Type	Dia. x L. in Front of Panel Inches	Tol.	Watts @ °C	Range °C	Accuracy	Revolu- tions	Res. Ohms	1-	5- 9	10- 24	25- Up
529-75RC	3610S	⅓ x .74	±5	1.5/25°	-25/+85	±0.5%	50000	1k, 5k, 20k, 100k	23.30	21.00	20.50	18.60
529 74RC	3650S	1¼ x .90	±3	2.5/25°	-25/+85	±0.2%	200000	1k, 2k, 5k, 10k, 100k	29.75	28.50	26.39	23.75



TURNS-COUNTING DIALS

For use with precision potentiometers or other rotating devices up to 10 turns. Simplified mounting—no special panel holes required. No backlash—mounted directly to potentiometer shaft. Models listed have no brake. Extremely high readability—1 part in 1000 for ten turns. Dial Divisions: 100 per turn. Markings: White on black background. Operating Temperature Range: —15° to +85°C. Mechanical Life: 10,000 cycles. Humidity: MIL-STD-202, Method 103

1" DIAMETER MODELS

Caroli	Mfr's	Body	Shaft Dia.	EA	CH
Stock No.	Type	Finish	In.	1-9	10-Up
528-0079	H-492-2	Clear	1/8	12.20	7.25
528-0091	H-494-2	Black	1/8	12.43	7.40
528-0081	H-492-3	Clear	1/4	11.70	6.95
528-0093	H-494-3	Black	1/4	12.03	7.15

1%" DIAMETER MODEL

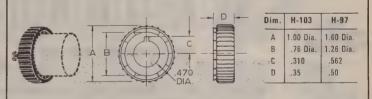
528-0096 H-510-2 Clear 1/4 9.98 5.70







BRAKES FOR KNOBPOTS



Especially designed for Knobpots Potentiometers with Clock Face, Manufacturer's Type 3600S and 3640S listed above. These precision crafted brakes are designed for quick and easy mounting—snap on easily. They lock control setting in any desired position and prevent the control setting from slipping out of adjustment. Average shipping weight: 2 ounces.

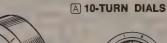
Stock	Mfr's		EA	CH
No.	Туре	Description	1-9	10-Up
528-0065	H-103	For 3600S	2.25	1.50
528-0051	H-97	For 3640S	2.25	1.50

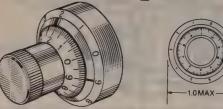
POTENTIOMETER ORDERING INFORMATION (TABLE A)

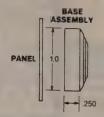
Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
50	13	1 k	25	20k	37	250k	61
100	16	2k	28	50k	46	500k	64
200	19	5k	31	100k	49	1 meg.	76
500	22	10k	34	200k	58		

The chart to the left lists all the resistance values available on this page. For values available in each type style see the appropriate listing above. To complete Allied Stock Number, insert Resistance Code (RC—shown to right of ohms value in the chart to the left) in place of RC in Stock Number.

1" DIAMETER ROTARY COUNTING DIALS







For precision potentiometers. Dial backlash is eliminated by locking knob to shaft and non-rotating base to panel. Shaft extends from panel 0.60" min. to 0.80" max. (.725 optimal). Max. bushing extends from panel 0.296". Needs no special panel holes for mounting. Dial body diameter, 1" maximum. Life tested for ¼ million cycles without appreciable wear. Bushing threads are ¾-32 NEF2 for ¼" shafts. Average shipping weight: 3 ounces.

10	T	URN	DIA	_S

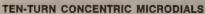
Stock	Mfr's	Lock	Finish	Shaft Dia.		EAC	Н	
No.	Type	Mech.	1 1111011	In.	1-4	5-9	10-24	25-Up
822-0411 822-0412	RD-411 RD-412	No Yes	Black Black	1/4	14.37 15.45	11.50 12.36	7.70 8.25	7.20 7.62
B22-0461	RD-461	_No	Clear	1/4	14.37	11.50	7.70	7.20
822-0462	RD-462	Yes	Clear	1/4	15.45	12.36	8.25	7.62

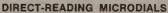


MINIATURE CONCENTRIC MICRODIAL

B Series 1370. Only %" diameter. Indicates angular position of potentiometers and multi-turn devices of 10 turns or less with 1000:1 indexing accuracy. Vemier dial mounts directly to shaft, eliminating backlash. Fingertip disk brake. 1%" deep. For ¼" shaft, 2 oz. 714.4370...1-4...Ea. 12.30 5-9...Ea. 8.00 10-24...Ea. 6.17 25-49...Ea. 5.85

50-Up. Ea. 5.53





Series 1300. For rotary devices. Easy-to-read numerals. 100:1 Indexing accuracy. Mount directly to shaft, eliminate backlash. Exceeds MIL-E-5272C. 3-digit types are 13/42x113/6" dia.; 4-digit, 15/6 x21/6" dia. For 1/6" to 5/6" dia. shafts, panels to 3/6" thick. 1309 with fingertip brake. 4 oz.

Stock No.	Mfr's. Type	Dig-	Turns	EACH				
		its		1-4	5-9	10-24	25-Up	
714-4309	1309	3	10	20.25	16.38	15.54	14.75	
714-4310	1310	3	10	19.05	15.22	14.43	13.70	
714-4304	1304	4	100	26.30	21.00	19.95	18.90	
714-4314	1314	4	100	28.25	22.57	21.42	20.31	



0

DIGITAL-READING MICRODIALS

EF Series 3100 & DFD-IN. 10-turn microdial with direct reading miniature digital readout to 999. Accuracy is 1 part in 1000. Control knob mounted directly to shaft to eliminate backlash. Mounts in 1x1½" hole. Fig. E has a brush aluminum finish. Fig. F has magnifying lens. 1½xx1½" (HxW). Wt. 5 oz.

Stock No.	Mfr's, Type	Shaft Dia. In.	Light	Fig.	EACH				
					1-4	5-9	10-24	25-Up	
714-7341 714-7343	3141 DFD-IN	1/4	None None	E	15.87 11.27	12.60 9.00	11.97 8.50	11.34 8.00	



10-TURN CONCENTRIC MICRODIALS

Series FDA. Inner vernier dial is shaft mounted. Large outer turns counting dial. Finger-tip brake. 10-turn concentric scale increment dial has 100 divisions; turns-counting dial numbered 0 thru 10. 1.1" dia. x .83" depth. 1000:1 readout accuracy. 2 oz.

Stock No.	Mfr's Type	Shaft Dia. In.	Light	Fig.	EACH				
					1-4	5-9	10-24	25-Up	
714-9600 714-9601	DFA-N DFA-NB	1/4 1/4	None None	G	8.45 8.45	6.76 6.76	4.25 4.25	4.05 4.05	



DIGITAL MICRODIALS

Elements Series 1380. Ten turns. Zinc housing. Indexing accuracy, 1:1000. One screw mounts dial to potentiometer shaft. 11/4"Wx13/4"H. 3-digit readout counts to 999. 2 oz.

Stock No.	Mfr's Type	Shaft Dia. In.	Light	Fig.	EACH			
					1-4	5-9	10-24	25-Up
714-4400 714-4401	1381 1385	1/4 1/4	None None	H	11.27 11.27	9.00	8.55 8.55	8.10 8.10

TURNS COUNTING DIALS



MINIATURE TURNS-COUNTING DIAL

Model 61. Numerals are large and easily visible from any angle. Reading accuracy of one part in a thousand. Shaft rotation is read directly from two concentric scales: inner scale graduated in fliftieths of a turn; outer scale in full turns from 0 to 9. Black scale readings on satin finish aluminum with black nylon knob and locking handle, Fits ¼" shaft, %" bushing pots. Dial is secured to potentiometer shaft by a set screw. %" dla. x 795" long. 795" long.

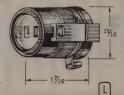
Stock No.	884-1-	Turns	EACH				
	Type		1-9	10- 24	25- 49	50- Up	
530-1061	61	10	10.30	8.24	6.30	6.15	



TURNS-COUNTING DIAL

Model 81. Read to accuracy of one part in one thousand. Mounting set screw connects 100-division inner dlal directly to shaft of device being positioned, eliminating backlash. Ten-turn counter indicates the number of full turns completed; outer dial indicates hundredths. Die-cast; nylon knob and locking handle, Fits ¼" shaft. 11¾6" dla. x·1" overall length.

	041	005-1-		EACH					
Stock No.		Type	Turns	1-	10- 24	25- 49	50- Up		
	530-1081	81	10	9.20	7.36	5.18	4.89		



DIGITAL TURNS-COUNTING DIAL

Model 71. Extremely smooth action allows numerical transfer with no catching or binding. High impact black plastic case with metal turning cylinder and quick action, positive braking lever. For use with %7-32 bushing mount ¼7 shaft potentiometer. Set screw to shaft mounting eliminates backlash. 3-digit readout has magnifying face lens.

Stock No.	185-1-		EACH				
	Туре	Turns	1- 9	10- 24	25- 49	50- Up	
530-1071	71	10	11.20	9.60	9.10	8.60	
	_						



CLOCKFACE TURNS-COUNTING

Model 76. Small dial (only 76" dia.) of polished aluminum with black plastic tum knob which allows rapid adjustment, excellent readability to liftieths of a tum. Both clock hands and integers are finished with a glow orange enamel, making readout possible from any angle, even in minimal light. Positive locking lever. Set screw secures dial to shaft. Use with 3" bushing mount 3" shaft pot. Size 76" dia. x 13%" length.









10-TURN CONCENTRIC SCALE DIALS

Needs 1" panel space. Knob attaches directly to shaft. Body of dial is mounted rigidly to panel for zero backlash. Reading accuracy of 1000:1 with zero reading error. Anodized aluminum. *Adapter available for 1/6" dia. shaft. Wt. 3 oz.

Stock	Mfrs.	Lock	Finish	Shaft Dia.	Bushing Threads	EACH		CH	
No.	Type	Mech.		In.	In.	1-9	10-24	25-99 100-U	9
753-5411		No	Black	1/4"	%-32 NEF2A	10.27			
753-5412		Yes	Black	1/4"	%-32 NEF2A			9.50 8.86	
753-5461		No	Clear	1/4°	%-32 NEF2A		9.37		
753-5462	462	Yes	Clear	1/4°	%-32 NEF2A	12.63	10.73	10.05 9.37	

For low power and sensitive setability applications. Replaces backlash units. For CRT display position, gain, null, bushing-mounted trimmer-type and DC balance controls. Wide range of industrial, military and consumer electronic applications. Turn ratio 10½ turns. VAC: Bushing to term., 1000 VAC at high pot test for 1 min., 500 VAC operating maximum; 500 VAC across end terminals. Approximately 4 oz. See pricing table below.

Stock No. Type	Ohms	Stock No.	Туре	Ohms	Stock No.	Type	Ohms
540-2015 VA-45-1			VA-45-5000			VA-45-250k	
540-2022 VA-45-25 540-2025 VA-45-5			VA-45-10k			VA-45-500k	
540-2030 VA-45-1			VA-45-25k VA-45-50k			VA-45-1M	1 Meg
540-2038 VA-45-2		540-2065	VA-45-100k	100k			

	MODE	L 221	SLIDE	ACTU
epless, continuously variable				

Stepless, continuously variable thick-film resistive devices, incl. smooth infinite resolution characteristics and all curves are essentially smooth and continuous. Active elements are completely encased in plated diecast housings which are provided with overlapping anti-friction dust seal extending the full length of slider travel. Back and case are roll-swaged together to eliminate dust intrusion. Resistive element is Resolon®, a thick-film conductive plastic with a 7-year record of failure-free performance in over 100,000 precision potentiometers used in critical applications. Internal components are solvent resistant and require no cleaning throughout the potentiometer's life. Switches are lever actuated and externally mounted. Widely used and accepted by the broadcast and recording industries—great for sound systems, organ swell pedals, SCR and Triac lighting controls, audio and visual panels.

MODELS 221SL AND 221DL LINEAR SLIDE POTS

Model 221 slide pot is available in either single (SL) or dual (DL) element type. Used in broadcast/recording industry, primarily for tone control. Ideal when used with SCR's for stage lighting or any lighting control; may also be used for heating or motor speed control. Elements are linear.

	Series 2		Serie	ies 221DL	
Ohms	Stock No.	Type No.	Stock No.	Type No.	
1k 5k 10k 50k 100k	530-2925 530-2935 530-2940 530-2960 530-2970	221SL-1K 221SL-5K 221SL-10K 221SL-50K 221SL-100K	530-2135 530-2140 530-2160 530-2170	221DL-5K 221DL-10K 221DL-50K 221DL-100K	

	EACH	(Prices for On	e Resistance	Only)
Series	1-9	10-24	25-49	50-Up
221-SL	12.40	9.85	9.30	8.75
221-DL	22.40	17.75	16.80	15.80

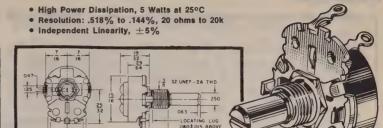
MODELS 221SA AND 221DA AUDIO SLIDE POTS

Model 221SA has a single resistive element with audio curve function where 10% of output voltage is obtained at 50% of travel. Model 221DA is the same, but with two elements. Used extensively in broadcasting and recording industry for monophonic as well as stereo sound reproduction applications.

	Serie	Series 221SA		Series 221DA		
Ohms	Stock No.	Type No.	Stock No.	Type No.		
600	530-2520	221SA-600	530-1520	221DA-600		
1k	530-2525	221SA-1K				
2.5k	530-2527	221SA-2.5K				
5k	530-2535	221SA-5K				
10k	530-2540	221SA-10K	530-1540	221DA-10K		

-	EACH	(Prices for One	Resistance	e Only)
Series	1-9	10-24	25-49	50-Up
221SA	13.45	10.70	10.10	9.50
221DA	24.35	19.35	18.30	17.20

TYPE VA-AW 5-WATT WIREWOUND



POTS AND TRIMMERS

Compact 13/6" dia. High power; better temp. coefficient stability applications. Unique winding strip; linear design permit high power performance; economical price. Motor speed controls, oscilloscopes, phone equipment, air conditioners, instrumentation, etc. Turn ratio 8 3/4 turns. VAC: Bushing to term., 1000 VAC on high pot test for 1 min., 750 VAC operating maximum; 500 VAC across end terminal. Resistance tolerance, ±10%. 4 oz. See pricing table below.

Stock No.	Mfr's Type	Ohms	Stock No.	Mfr's Type	Ohms
540-1005	VA-AW-20	20	540-1030	VA-AW-1000	1000
540-1010	VA-AW-50	50	540-1035	VA-AW-2000	2000
540-1015	VA-AW-100	100	540-1040	VA-AW-5000	5000
540-1020	VA-AW-200	200	540-1045	VA-AW-10k	10k
540-1025	VA-AW-500	500	540-1050	VA-AW-20k	20k

Mfr's Type	Description	Resistance (See Tables Above)		EA	CH	
mit a type	Description	Resistance (See Tables Above)	1-9	10-24	25.49	50-Up
VA-AW VA-45	Wirewound Carbon	20 ohms to 20k 100 ohms to 1 megohm	8.75 4.18	7.00 3.50	5.25 3.15	4.75 2.80

ATED POTS

SPECIFICATIONS: Life: less than 10% total resistance change with an excess of 5M traverses; 3-year guarantee. Noise: less than 400 ohms equivalent noise resistance after 5M traverses. End Voltage: less than .01% on all units, min. of 80 dB attenuation. Resolution: infinite. Function Travel: 2½". Mechanical Travel: 2¾". Tracking: within 2 dB. Conformity: ±3 dB, most functions. Terminals: gold-plated. Stop Strength: withstands 20 lbs. either stop. Dielectric Withstanding Voltage: 500 V rms. Sealing: self-closing dust seal of anti-friction material. Cue Switches: DPDT on Model 2215A/20 10 amps. Elements: single and dual types identical cases. Size: 4½ x 1½ x 3¾". (Optional Knob: ½" I.D. mtg. hole.) 4 oz.

MODELS 221STL AND 221DTL LINEAR SLIDE POTS

General purpose pots for tone applications, audio instrumenta-tion, servo followers, SCR controls and balance circuits. Some-times known as a pan pot, for audio source panning; can be used in visual pan controls. Single linear resistive element with center tap (STL) or dual element (DTL) for stereo applications.

	Serie	s 221STL	Series 221 DTL	
Ohms	Stock No.	Type No.	Stock No.	Type No.
1k	530-3125	221STL-1K	530-2325	221DTL-1K
5k	530-3135	221STL-5K	530-2335	221DTL-5K
10k	530-3140	221STL-10K	530-2340	221DTL-10K
50k	530-3160	221STL-50K	530-2360	221DTL-50K
100k	530-3170	221STL-100K	530-2370	221DTL-100F

	EACH	(Prices for C	One Resistance	Only)
Series	1-9	10-24	25-49	50-Up
221STL 221DTL	18.40 34.40	12.85 23.75	11.55 21.30	10.60 19.50

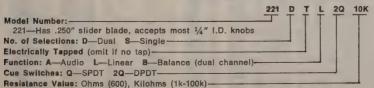
MODEL 221SA2Q AUDIO SLIDE POT WITH CUE SWITCH

Completely isolated DPDT switch on single audio resistive element. Ideal for applications where cueing or cue light are required. Movement of slider to extreme end operates switch with smooth, positive action. Switch rated 10 amps. Also used for transfer of lighting control between panels.

Ohms "	Stock No.	Type No.
600	530-2720	221SA2Q-600
1k	530-2725	221SA2Q-1K
5k	530-2735	221SA2Q-5K
10k	530-2740	221SA2Q-10K

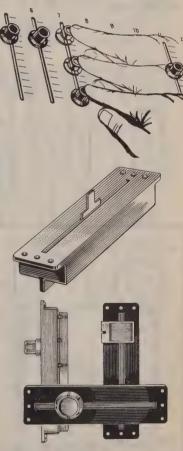
	EACH	(Prices for O	ne Resistance	Only)
Series	1-9	10-24	25-49	50-Up
221SA2Q	22.80	18.15	17.10	16.10

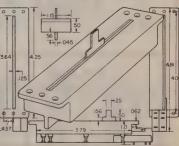
EXPLANATION OF PART NUMBERS



EXAMPLES: 221SA2Q-600 is a standard potentiometer with single resistive element. Follows audio taper curve with 600 ohms total end-to-end resistance; has DPDT cue switch.

221DTL-5K uses same exterior case, but has two resistive elements, each elec-trically center tapped. Both elements have linear tapers with 5000 ohms total end-to-end resistance. No switch.





Allied® High-Reliability Ceramic Disc Capacitors

	—— CAPACITOR MINI-INDEX ——	
Ceramics Allied .110 Arco .110, 111 Centralab .111-113, 118 Sprague .111-113 Computer Grade .124, 125 Mallory .124, 125 Sprague .124, 125	Cinch	Polyester and Mylar Allied
Electrolytic Allied	Metallized Paper Cornell-Dubilier	Tantalum

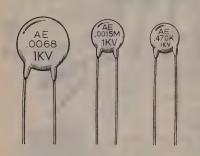
ALLIED CERAMIC DISC CAPACITORS

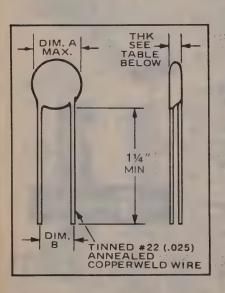
Low cost, smallest size 1000 WVDC general application ceramic capacitors available. Tiny, tough and dependable in every application. Designed to the minimum size obtainable. Higher voltage ratings provide an extra reserve for resistance to surges and temporary overloads. Phenolic coating and high temperature wax impregnation assure superior moisture resistance and physical strength. Excellent in bypass and coupling applications in IF and RF circuits. In the Cross-Reference Guide below (*) refers to $\pm 20\%$ tolerance; (†) refers to $500\text{VDCW}, \pm 20\%$ tolerance; (†) refers to 500VDCW, +80-20% tolerance. G \equiv Guaranteed Minimum Value.

SPECIFICATIONS

Operating Temperature Range: -55°C to +125°C. Characteristic: Z5u. Dissipation Factor: 2% maximum at 1 kHz. Flash Test Voltage: 1800 VDC for 1000 WVDC units. Working Voltage: 1000 WVDC except 30,000 pF and up, 500 WVDC. Tolerance: ±10% except 10,000 to 30,000 pF, ±20%; 40,000 and 50,000 pF, +80%, -20%.

CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS





	SIZE	CODE	All of
Code	Dim. A.	Dim. B.	Thk
A B C D E F	.290" .385" .590" .690" .900"	.250" .250" .375" .375" .375" .375"	.156" .156" .156" .156" .156" .250"

				Equ	ivalent Ty	pes		E/	CH	1. 1.
Stock No.	Allied . Type	Capaci- tance pF	Size Code	Sprague 5GA-	Centra- lab DD	Mallory GP-	1- 24	25- 99	100- 999	1000- Up
710-1000 710-1001 710-1002 710-1006 710-1008	CCD-050 CCD-100 CCD-120 CCD-150 CCD-180	5 10 12 15 18	A A A A A	V50 Q10 Q12 Q15 Q18	050 100 120 150 180	550 410 412 415 418	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1010 710-1012 710-1014 710-1016 710-1017	CCD-200 CCD-220 CCD-250 CCD-270 CCD-300	20 22 25 27 30	4444	Q20 Q22 Q25 Q27 Q30	200 220 250 270 300	420 422 425 427 430	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1018 710-1019 710-1020 710-1021 710-1022	CCD-330 CCD-390 CCD-470 CCD-500 CCD-560	33 39 47 50 56	4444	Q33 Q39 Q47 Q50 Q56	330 390 470 500 560	433 439 447 450 456	.15 .15 .15 .15	.13 .13 .13 .13 .13	.054 .054 .054 .054	.036 .036 .036 .036
710-1024 710-1025 710-1026 710-1027 710-1035	CCD-680 CCD-750 CCD-820 CCD-910 CCD-101	68 75 82 91 100	4444	Q68 Q75 Q82 Q91 T10	680 750 820 910 101	468 475 482 491 310	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036 .036
710-1036 710-1037 710-1038 710-1039 710-1040	CCD-121 CCD-151 CCD-181 CCD-201 CCD-221	120 150 180 200 220	4444	T12 T15 T18 T20 T22	121 151 181 201 221	312 315 318 320 322	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1041 710-1042 710-1043 710-1044 710-1045	CCD-251 CCD-271 CCD-301 CCD-331	250 270 300 330 390	AAAAA	T25 T27 T30 T33 T39	251 271 301 331 391	325 327 330 333 339	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1055 710-1056 710-1066 710-1067 710-1068	CCD-401 CCD-471 CCD-501 CCD-561 CCD-681	400 470 500 560 680	A A A A A	T47 T50 T56 T68	401 471 501 561 681	340 347 350 356 368	.15 .15 .15 .15	.13 .13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1069 710-1079 710-1080 710-1090 710-1091	CCD-751 CCD-801G CCD-821 CCD-102 CCD-122	750 800 820 1,000 1,200	AAABB	T75 T80 T82 D10 D12	751 801 821 102 122	375 382 210 212	.15 .15 .15 .15	.13 .13 .13 .13	.054 .054 .054 .054 .054	.036 .036 .036 .036
710-1092 710-1093 710-1094 710-1095 710-1096	CCD-152 CCD-202G CCD-222G CCD-252G CCD-272G	1,500 2,000 2,200 2,500 2,700	BBBBB	D15 D20 D22 D25 D27	152 202 222 252 272	215 220 222 225 227	.15 .18 .18 .18	.13 .15 .15 .15	.054 .095 .095 .095	.036 .075 .075 .075 .075
710-1097 710-1098 710-1099 710-1101 710-1102	CCD-302G CCD-332G CCD-392G CCD-472 CCD-502	3,000 3,300 3,900 4,700 5,000	всссс	D30 D33 D39 D47 D50	302 332 392 472 502	230 233 239 247 250	.18 .18 .19 .19	.15 .15 .16 .16	.095 .095 .115 .115	.075 .075 .08 .08
710-1103 710-1104 710-1105 710-1116 710-1126	CCD-562G CCD-682G CCD-822G CCD-103 CCD-153	5,600 6,800 8,200 10,000° 15,000°	00000	D68 D82 S10 S15	562 682 822 103 153	256 268 110 115	.19 .19 .19 .21	.16 .16 .16 .17	.115 .115 .115 .12 .12	.08 .08 .08 .09
710-1136 710-1146 710-1156 710-1166	CCD-203 CCD-303 CCD-403 CCD-503	20,000* 30,000† 40,000‡ 50,000‡	DEFF	\$20 \$40 \$50	203 303 403 503	120 130 140 150	.26 .26 .41 .43	.22 .22 .34 .36	.169 .169 .20	.099 .099 .15 .16

HYPERCON CERAMIC DISCS

Superior to electrolytic capacitors of similar capacitance values due to very low power factor. Ultra-miniature—ideal for use in transistorized circuitry. For by-pass and coupling applications in solid-state circuits; but particularly well-suited for any low-voltage use where high capacitance and low power factor are important. Capacitance tolerance: +80, -20%. Hypercon ceramic disc capacitors can be used in a wide variety of commercial and industrial applications. Contact your Allied representative for other capacitance values. Shpg. wt. 1 oz.



					EA.	CH	Multi of	100 only
Stock No.	Mfr's Type	uF	WVDC	Size, In. DxT	1- 49	50- 99	100- 400	500- Up
926-0715 926-0723 926-0731 926-0735 926-0739	HY-350 HY-360 HY-370 HY-375 HY-380	.047 .1 .22 .33 .47	10 10 10 10	3/8 X 5/32 7/16 X 5/32 5/8 X 5/32 3/4 X 8/32 7/8 X 5/32	.18 .23 .34 .41 .45	.15 .18 .27 .33	.102 .13 .189 .248	.068 .12 .126 .165 .212
926-0745 926-0749 926-0758 926-0766 926-0775	HY-420 HY-425 HY-435 HY-450 HY-470	.01 .022 .047	16 16 16 16	5/16X5/32 3/8X5/32 1/2X5/32 11/16X5/32 7/8X5/32	.19 .18 .18 .19	.15 .15 .15 .15 .15	.11 .086 .102 .113 .192	.10 .057 .068 .075
926-0796 926-0801 926-0803 926-0805 926-0812	HY-520 HY-525 HY-530 HY-535 HY-550	.01 .022 .033 .047	25 25 25 25 25	3/8 X 5/3 2 7/1 6 X 5/3 2 1/2 X 5/3 2 9/1 6 X 5/3 2 3/4 X 5/3 2	.18 .18 .18 .23	.15 .15 .15 .18 .21	.09 .102 .102 .124 .17	.07 .068 .058 .083 .098

MINIATURE DISC CERAMIC CAPACITORS

Series TG miniaturized disc ceramic capacitors can be used for a wide variety of applications in industry and commerce. These miniature capacitors are excellent for use in transistorized circuitry and other applications where miniaturization is of value. Series TG capacitors have a working voltage of 100 VDC. Standard tolerance is $\pm 20\%$. Intended for coupling and by-pass applications.



				EA	СН	Multiples of 10		
Stock No.	Mfr's Type	uF	Size, In. Dia. x Thick.	1- 49	50- 99	100- 400	500- Up	
926-1420	TG-D50	.005	5/16X5/32	.18	.15	.06	.04	
926-1434	TG-S10	.01	- 3/8X5/32	.18	.15	.08	.05	
926-1437	TG-S20	.02	1/2X5/32	.18	.15	.09	.06	
926-1440	TG-S25	.025	1/2X5/32	.18	15	.09	.07	
926-1444	TG-S30	.03	5/8X5/32	.18	.15	.09	.07	
926-1447	TG-S50	.05	9/16X5/32	.37	.30	.22	.15	

LOW-VOLTAGE CERAMIC DISC CAPACITORS



						E/	ACH		
Stock	Mfr's	uF	wv		Pk	gs. of 1	00	Pkgs.	of 1M
No.	Туре		DC	1- 99	100	200- 400	500- 900	1 M - 3 M	4M- Up
748-0385 748-0365 748-0373 748-0381 748-0389 748-0369 748-0753	CK-502 CK-103 CK-203 CK-303 CK-503 CK-104 DDA-104	.005 .01 .02 .03 .05	50 50 50 50 50 50 50 75	.22 .22 .22 .22 .32 .64	.178 .178 .178 .178 .255 .509	.113 .113 .113 .113 .161 .322 .322	.085 .075 .085 .085 .121 .241	.052 .056 .082 .082 .094 .232	.045 :049 .072 .072 .083 .206 .191

UK MINIATURE DISC CAPACITORS

Dissipation factor at 1 kHz, 3-10%. Tolerance: 3 WVDC types, guaranteed minimum value; 10 and 20 WVDC, +80 -20%. 25 & 50 WVDC ±20% 5/32" thick; 7/32" to 59/64" diameter. All types listed have No. 22 leads. 1 oz.



					i		ĿΑ	CH		
				Size In.		Pkg	js. of	100	Pkgs.	of 1 M
Stock No.	Mfr's Type	uF	DC DC	Max. Dia. x Max. Thick.	1- 99	100	200- 400	500- 900	1 M- 3 M	4M- Up
748-6016 748-6047 748-6035 748-6039 748-6043	UK-474 UK10-503 UK10-104 UK10-204 UK10-474	.47 .05 .1 .2	3 10 10 10	.405x.156 .290x.156 .405x.156 .590x.156 .820x.156	.32 .19 .19 .32	.255 .153 .153 .255	.161 .097 .097 .161	.121 .073 .073 .121	.105 .064 .071 .102	.092 .057 .062 .089
748-6088 748-6080 748-6084 748-6110 748-6116	UK20-503 UK20-104 UK20-204 UK25-103 UK25-223	.05 .1 .2 .01 .022	20 20 20 20 25 25	.405x.156 .590x.156 .820x.156 .290x.156 .290x.156	.19 .22 .41 .17	.153 .178 .332 .139 .161	-	.073	.066 .083 .149	.059 .073 .131 .049
748-6122 748-6111 748-6165	UK25-503 UK25-104 UK50-103	.05 1 .01	25 25 50	.405x.156 .590x.156 .290x.156	.25 .26 .20	.204 .215 .167		.139		.082 .082 .054

MINIATURE DISC CERAMIC CAPACITORS

Type TCD. Low voltage miniature disc ceramic capacitors designed for low voltage transistor circuitry. Applications requiring high capacitance and low power factors for voltages from 3 to 50 volts can use these types. All units are coated with a rugged "Durez" coating and are available in both $\pm 20\%$, +80%-20% tolerances. Type TCP. Miniature discs are Ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements and 100 WVDC design. Av. shpg. wt. 2 oz. each



50 VOLT (150 VOLT TEST) $\pm 20\%$ TOL.—Z5U CHAR.

			Size	1,1	EA	CH	
Stock	Mfr's	μF	(Dia. x Thk. x Lead	1-	25-	100-	1000-
No	Type		Spacing) Inches	24	99	999	Up
710-1410	TCD-223M	.022	.473 x .156 x .250	.23	.19	.062	.054
710-1420	TCD-473M	.047	.590 x .156 x .375	.32	.29	.093	.082
710-1425	TCD-503M	.050	.590 x .156 x .375	.35	.32	.093	.082

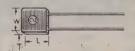
50 VOLT (150 VOLT TEST) +80-20% TOL.—Z5V CHAR.

			Size	1	EA	CH	
Stock No.	Mfr's Type	μF	(Dia. x Thk. x Lead Spacing) Inches	1- 24	25- 99	100- 999	1000- Up
710-1465	TCD-104Z	.100	.721 x .171 x .375	.57	.37	.15	.129

VOLTT			

710-1499	TCP-R1	.1	1.0x .156 x .375	.38	.30	.22	.186

7C RADIAL-LEAD CERAMIC CAPACITORS

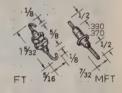


Resin-coated monolythic ceramic capacitors. Radial-lead style with stand off "feet" for printed wiring board mounting. Vacuum wax impregnation and an outer epoxy varnish finish. 50 VDC rating. Tolerance: $\pm 20\%$. Operating temperature: $-55\,^{\circ}\mathrm{C}$ to $+85\,^{\circ}\mathrm{C}$.

					EAC	Н	
Stock	Mfr's	μF	Size, In.	1-	25-	50-	100-
No.	Type		LxWxT	24	49	99	Up
926-4810	7C023103X0500D	.010	.390x.275x.160	1.32	1.06	.80	.53
926-4840	7C023473X0500D	.047	.390x.275x.160	.92	.73	.52	.46
926-4812	7C023104X0500D	.10	.390x.275x.160	1.32	1.06	.80	.53
926-4828	7C023224X0500D	.22	.390x.275x.160	1.62	1.25	.94	.63
926-4837	7C023334X0500E	.33	.535x.550x.160	2.05	1.57	1.18	.79
926-4841	7C023474X0500E	.47	.535x.550x.160	2.27	1.75	1.32	.88
926-4814	7C023105X0500E	1.0	.535x.550x.160	2.60	2.08	1.56	1.04
926-4824	7C023155X0500E	1.5	.535x.550x.160	4.10	3.13	2.35	1.57
926-4831	7C023225X0500F	2.2	.535x.500x.260	5.42	4.14	3.11	2.07

FEED-THRU CERAMIC CAPACITORS

Type FT. For high-frequency circuits where feed-thru plus capacity ground is required. Double-flatted bushing, .281" long with 12-28 bushing, nut, 3 oz. Type MFT. 7/32" maximum-diameter flange eyelet for insertion in .160" hole. Solder to chassis. Tolerance: (*) ± 50 -20%. (†) $\pm 10\%$. (‡) Guaranteed min. valve, 3 oz.

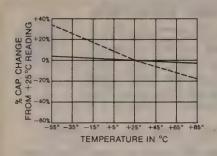


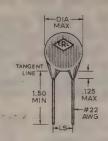
			EACH					
Stock	Mfr's	pF	oF		Pkgs. of 100			
No.	Туре		1- 99	100	200- 400	500- Up		
748-3500 748-3502 748-3504 748-3506 748-3508	FT-500† FT-1000† FT-1500* FT-1800* FT-2300*	500 1000 1500 1800 2300	.80 .80 .80 .80	.637 .637 .637 .637	.402 .402 .402 .402 .402	.300 .300 .300 .300 .300		
748-4002 748-4004 748-4006	MFT-100† MFT-500* MFT-1000‡	100 500 1000	.32 .32 .32	.255 .255 .255	.161 .161 .161	.121 .121 .121		

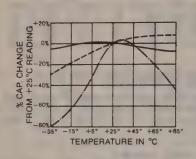
Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. To assure the fastest and most accurate service, please specify manufacturer's type number and stock number on each order. Depend on Allied for prompt off-the-shelf delivery in industrial quantities for all your electrical needs. Contact the nearest Allied Electronics facility for information on prices and delivery on quantities larger than shown. See front of catalog for complete list of Allied Regional Offices.

High Voltage, Ceramic Capacitors

SERIES DD DISC CERAMICS







Recommended where high capacity is required and stability is secondary. For general purpose applications. Designed for non-critical coupling, bypass and filter applications found in all types of entertainment, industrial and medical equipment. Operating temperature range: —55° to +85°C. Tinned wire leads. Encapsulation: Durex coated, wax impregnated. Dielectric strength: 200% of rated working voltage. These high dielectric ceramic discs offer small size, tighter tolerances and a rugged humidity resistant coating. Types DD16, 30, 60: Buffer capacitors. Wt. 2 oz.

C1 CERAMIC BY-PASS CAPACITORS

For AC line by-pass application, or where a steady or intermittent higher voltage may occur. Tol. $\pm 20\%$, Oper. Temp. to +85%. 1400 WVDC or 150 VAC. Leads: #22 tinned copper, $1\frac{1}{2}''$ long. U.L. 1 oz.

Stock	Mfr's	pF	Dia.	EACH	EACH, Pkgs. of 100			
No.	Туре		(ln.)	1-99	100	200-400	500-Up	
748-0350	CI-502	5,000	730	. 28	.21	.16	.09	
748-0335	CI-103	10,000	.840	.32	.27	.22	.12	



SERIES 10TCC NPO CERAMICS

Rugged, ultra-reliable capacitors for wide industrial applications. Zero temperature-coefficient capacitors are used where capacitance change with temperature is undesirable. Superior stability, high "Q" and insulation resistance. Working voltage: 500 VDC. Tolerance: $\pm5\%$ on 12 pF and above; ±0.5 pF on 10 pF and below. Av. shpg. wt. 1 oz.

				EA	CH	EACH, F	kg. 100
Stock No.	Mfr's Type	pF	Size, In. DxT	1- 49	50- 99	100- 400	500- Up
926-5004 926-5009 926-5015 926-5024 926-5034	10TCC-V10 10TCC-V15 10TCC-V22 10TCC-V33 10TCC-V47	1.0 1.5 2.2 3.3 4.7	%X\/4 %X\/4 %X\/4 %X\/4 5/16X ⁸ /32 5/16X ⁵ /32	.17 .18 .18 .18	.15 .15 .15 .15 .15	.06 .08 .08 .08	.04 .04 .04 .04
926-5044 926-4920 926-4924 926-4928 926-4930	10TCC-V68 10TCC-Q10 10TCC-Q15 10TCC-Q20 10TCC-Q22	6.8 10 15 20 22	5/16X5/32 5/16X5/32 3/6X5/32 3/6X5/32 7/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.08 .08 .08 .08	.04 .04 .04 .04
926-4933 926-4939 926-4945 926-4950 926-4953 926-4962	10TCC-Q25 10TCC-Q33 10TCC-Q39 10TCC-Q47 10TCC-Q50 10TCC-Q68	25 33 39 47 50 68	7/16X ⁵ /32 7/16X ⁵ /32 1/2X ⁵ /32 9/16X ⁵ /32 3/16X ⁵ /32 5/6X ⁵ /32	.18 .18 .18 .18 .18	.15 .15 .15 .15 .15	.08 .08 .08 .07 .08	.04 .04 .04 .04 .04
926-4969 926-4974 926-4976 926-4979 926-4985 926-4990	10TCC-Q75 10TCC-T10 10TCC-T12 10TCC-T15 10TCC-22T 10TCC-T27	75 100 120 150 220 270	5/8X5/32 11/16X5/32 3/4X5/32 3/4X5/32 3/4X7/32 13/16X7/32	.18 .18 .18 .18 .37 .37	.15 .15 .15 .15 .30	.08 .09 .09 .09 .21	.04 .06 .06 .06 .14



SERIES 10TCU N750 CERAMIC

Ceramic disc capacitors for use in tuned circuits. Negative temperature coefficient with negative change of 750 parts per million per °C. Rated at 500 WVDC. Tolerance: ±5% on 12 pF and up; ±0.5 pF on 10 pF and below. Wt. 3 oz.

				EACH		EACH, F	kg. 100
Stock No.	Mfr's Type	pF	Size, In. DxT	1-	50- 99	100- 400	500- Up
926-5153 926-5055 926-5060 926-5084 926-5110	10TCU-V47 10TCU-Q10 10TCU-Q15 10TCU-Q47 10TCU-T10	4.7 10 15 47 100	%X 1/4 9/6 X 1/4 5/1 6 X 5/3 2 3/6 X 5/3 2 1/2 X 5/3 2	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-5120 926-5122 926-5130 926-5139 926-5149	10TCU-T20 10TCU-T22 10TCU-T33 10TCU-T47 10TCU-T68	200 220 330 470 680	5/6 x 5/32 5/6 x 5/32 3/4 x 5/32 7/6 x 5/32 7/6 x 5/32	.18 .18 .18 .26	.15 .15 .15 .21	.06 .06 .06 .15	.04 .04 .04 .10

				,		EACH	FA0	H Pkg.	100
Stock	Mfr's	pF	wv	%	Size, In.	EACH 1-	100	290-	500-
No.	Туре		DC	Tol	DxTxSpac.	99		400	Up
748-0437	DD-050	5	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0443	DD-100	10	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0466 748-0493	DD-150 DD-200	15 20	1000	±10 ±10	.290x.156x.250 .290x.156x.250	.17	.14	.09	.08
748-0502	DD-220	22	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0526	DD-250	25	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0564	DD-300	30	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0588	DD-330	33	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0665	DD-470	47	1000	±10	.290x.156x.250	.17	.14	.09	.08
748-0685	DD-500	50	1000	±10	.290x.156x.250	.17_	.14	.09	.08
748-0715 748-0445	DD-680 DD-101	68 100	1000	±10 ±10	.305x.156x.250 .305x.156x.250	.17	.14	.09	.08
748-0460	DD-121	120	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0468	DD-151	150	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-8486	DD-181	180	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0495	DD-201	200	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0504	DD-221 DD-271	220	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0544 748-0566	DD-271	270 300	1000	±10 ±10	.305x.156x.250 .305x.156x.250	:17	.14	.09	.08
748-0590	DD-331	330	1000	±11	.305x.156x.250	.17	114	.09	.08
748-0667	DD-471	470	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0687	DD-501	500	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0717	DD-681	680	1000	±10	.305x.156x.250	.17	.14	.09	.08
748-0730 748-0447	DD-751 DD-102	750 1,000	1000	±10 ±10	.305x.156x.250 .405x.156x.250	.17	.14	.09	.08
748-0470	DD-152	1,500	1000	±10	.405x.156x.250	.17	.14	.09	.08
748-0497	DD-202	2,000	1000	± 20	.405x.156x.250	17	.14	.09	.08
748-0568	DD-302	3,000	1000	±20	.405x.156x.250	.17	.14	.09	.08
748-0669	DD-472	4,700	1000	±20	.500x.156x.250	.17	.14	.09	.08
748-0689	DD-5022	5,000	1000	±20	.500x.156x.250	.17	.14	.09	.08
748-0745	DD-502 DD-1032	5,000	1000	GMV	.605x.156x.375	.17	.14	.09	.08
748-0740 748-0452	DD-1032	10,000	1000	±20 GMV	.705x.156x.375	.27	.22	.14	.12
748-0795	DD6-103	10.000	600	GMV	.590x.156x.375	.27	.22	.14	.12
748-0499	DD-203	20,000	600	GMV	.690x.156x.375	.51	.41	.26	.21
748-0805	DD16-103	10,000	1600	GMV	.835x.172x.375	.31	.24	.16	.13
748-0865	DD30-101	100	3000	±20	.330x.203x.250	.27	.22	.14	.12
748-0910 748-0867	DD30-501 DD30-102	1.000	3000	±20 ±20	.330x.203x.250 .430x.203x.250	.27	.22	.14	.12
748-0912	DD30-502	5.000	3000	±20	.800x.203x.250	.34	.27	.17	.14
748-0942	DD60-101	100	6000	±20	.660x.203x.375	.41	.33	.21	.18
748-0977	DD60-501	500	6000	±20	.630x.203x.375	.41	.33	.21	.18
748-0990 748-0944	DD60-751 DD60-102	750	6000	±20 ±20	.630x.203x.375	.41	.33	.21	.18
748-0955	DD60-102	1,000 2,000	6000	±20 ±20	.760x.313x.375	.68	.54	.34	.30
770-0000	2000-202	2,000	0000	1 - 20		.00		.04	

5GA, 5HK, BL AND 30GA CERAMIC DISCS

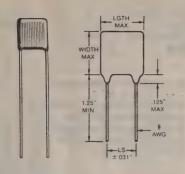


Tiny, tough, dependable. Ultra-compact. Low self-inductance of silvered flat-plate design for high by-pass efficiency in all TV circuits. Flat-plate construction. Tough, moisture-proof coating protects against short-circuiting and assures good performance under severe conditions of humidity and vibration. Series 5GA: 1000 WVDC; tolerance ±20%. Series 5HK: 1000 WVDC, except \$500 WVDC; tol. =20%, +80%. Series BL buffer ceramics: 2000 WVDC; tol. ±20%. Series 30GA: 3000 WVDC; tol. ±20%.

				EA	CH	EACH P	kg. 100
Stock No.	Mfr's Type	pF	Size, In. DxT	1- 49	50- 99	100- 400	500- Up
926-4587 926-4455 926-4460 926-4465 926-4470	5GA-V50 5GA-Q10 5GA-Q15 5GA-Q20 5GA-Q25	5 10 15 20 25	5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4472 926-4478 926-4490 926-4498 926-4527	5GA-Q27 5GA-Q33 5GA-Q50 5GA-Q68 5GA-T10	27 33 50 68 100	5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4532 926-4537 926-4539 926-4547 926-4550	5GA-T15 5GA-T20 5GA-T22 5GA-T30 5GA-T33	150 200 220 300 330	5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4556 926-4562 926-4572 926-4579 926-4401	5GA-T39 5GA-T47 5GA-T68 5GA-T82 5GA-D10	390 470 680 820 1,000	5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32 5/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4406 926-4411 926-4413 926-4424 926-4438	5GA-D15 5GA-D10 5GA-D22 5GA-D33 5GA-D47	1,500 2,000 2,200 3,300 4,700	5/10X5/32 3/6X5/32 3/6X5/32 3/6X5/32 7/16X5/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4441 926-4517 926-4522 926-4610 926-4620	5GA-D50 5GA-S10 5GA-S20 5HK-D10 5HK-D20	5,000 10,000 20,000 1,000 2,000	7/36X5/32 5/8X5/32 7/8X5/32 5/16X5/32 3/8X1/32	.18 .18 .18 .18	.15 .15 .15 .15	.06 .06 .06 .06	.04 .04 .04 .04
926-4675 926-0100 926-0107 926-0113	5HK-S50 5HK-P10 BL-D10 BL-D50 BL-S10	50,000 100,000‡ 1,000 5,000 10,000	11/16X3/16 7/8X3/16 9/16X7/32 9/16X7/32 3/4X7/32	.33 .67 .26 .26 .33	.27 .54 .21 .21 .27	.21 .40 .15 .15	.14 .27 .13 .13
926-5283 926-5215 926-5251	30GA-V15 30GA-Q10 30GA-T10	1.5 10 100	%x¼ %x¼ %sx¼	.19 .19 .19	.15 .15 .15	.11 .11 .11	.10 .10 .10
926-5277 926-5180 926-5195 926-5243	30GA-T50 30GA-D10 30GA-D47 30GA-S10	500 1,000 4,700 10,000	15/32X ¹ /4 15/32X ¹ /4 25/32X ¹ /4 25/32X ¹ /4	.27 .27 .30	.21 .21 .24	.15 .15 .17	.13 .13 .15

EACH

MONOLITHIC CERAMIC CAPACITORS



CY Series

CW Series. Epoxy coated temperature stable Mono-Kap capacitors with a high ratio of capacitance per unit volume. Capacitors provide reliable temperature stable performance over —55 to +125°C. for bypass, coupling, and blocking applications. CY Series. Epoxy coated, general purpose Mono-Kap™ capacitors. Have a high capacitance and miniature size for a wide range of non-critical general purpose bypass, coupling and filtering applications. Oper. temp. range: —55 to +85°C. Both capacitor series have tinned wire leads. Dielectric strength: 250% of WVDC.

						271011			
Stock No.	Mfr's Type	μF	WV DC	% Tol.	Case Code	1- 24	25- 49	50- 99	100- Up
748-8000 748-8010 748-8020 748-8030	CW30C104K CW15A471K CW15A681K CW15A102K	.1 .00047 .00068 .001	50 100 100 100	±10 ±10 ±10 ±10	30 15 15 15	1.00 .25 .25 .20	.67 .17 .17	.57 .15 .15 .12	.50 .13 .13 .10
748-8040 748-8050 748-8060 748-8070	CW15A222K CW15A472K CW20A103K CW30A104K	.0022 .0047 .01	100 100 100 100	±10 ±10 ±10 ±10	15 15 20 30	.25 .25 .38 1.10	.17 .17 .25 .86	.15 .15 .22 .62	.13 .13 .19 .54
748-8080 748-8090 748-8100 748-8110 748-8120	CY15C102M CY20C104M CY20C104P CY30C105M CY15A682M	.001 .1 .1 1.0 .0068	50 50 50 50 100	±20 ±20 GMV ±20 ±20	15 20 20 30 15	.23 .50 .35 1.65	.18 .40 .28 1.30	.13 .29 .20 .95	.12 .25 .18 .81
748-8130 748-8140 748-8150 748-8160	CY15A103M CY15A223M CY20A473M CY20A683M	.01 .022 .047 .068	100 100 100 100	±20 ±20 ±20 ±20	15 15 20 20	.23 .30 .53	.18 .24 .42 .42	.13 .18 .30 .30	.12 .15 .27 .27
748-8170 748-8180 748-8190	CY20A104P CY20A224M CY30A105M	.1 .22 1.0	100 100 100	GMV ±20 ±20	20 20 30	.35 .65 1.60	.28 .52 1.28	.20 .37 .91	.18 .33 .80

SIZE CHART THE STATE OF STATE STATE OF

Size Code	Max. Lgth. in.	Max. Width In.	Max. Thick. In.	Lead Spacing In.	Lead #AWG
15	.150	.150	.100	.100	26
20	.200	.200	.125	.100	24
30	.300	.300	.150	.200	24

DIPPED MICA CAPACITORS

SILVERED MICA CAPACITORS



CW Series

Oper, temp. range: -55 to +125°C w/out derating. Tolerance: ±5% or 0.5 pF, whichever is greater; except ±2% for CD6 (min. tol. ±1 pF) and CD7 (min. tol. ±0.5 pF). 500 WVDC, except *300 WVDC, †100 WVDC. 11/4" tinned brass wire leads, except DM/CD10 has copperweld. All meet 10-2000 cycle vibration to the company of the co

Marked with MIL & Commercial Type No.'s

Mtr's Type	Type	Size (HXWXD)
CD6 CD7		.265x.135x.095 .265x.260x.110 to .330x.310x.175
DM/CD10 DM/CD15	CM04 CM05	.360x.330x.190 to .390x.380x.220 .450x.360x.170 to .470x.400x.220
DM/CD19 DM/CD39	CM06 CM07	.640x.510x.200 to .700x.580x.350 .780x.860x.280 to .830x.920x.450
DM/CD42	CM08	1.420x.800x.310 to 1.470x.910x.450

	TYPES D	M/CD 10	, 15,	19		
S4a-l-	Man's Tune			EA	CH	
Stock No.	Mfr's Type DM or CD	pF	1-24	25- 99	100- 499	500- Up
755-0805	10CD050D03	5	.34	.27	.19	.16
755-0808	10CD100J03	10	.34	.27	.19	.16
755-0810 755-0814	10CD120J03 10CD180J03	12 18	.23	.18	.13	.11
755-0835	10ED220J03	22	.19	.15	.11	.10
755-0840	10ED240J03	24	.24	.39	.14	.12
755-0850	10ED270J03	27	.24	.39	.14	.12
755-0855 755-0857	10ED330J03 10ED390J03	33	.24	.39	.14	.12
755-0860	10ED470J03	47	.24	.39	.14	.12
755-0862	10ED510J03	51	.24	.39	.14	.12
755-0864	10ED560J03	56	.26	.20	.14	.13
755-0866 755-0868	10ED620J03 10ED680J03	62 68	.26	.20	.14	.13
755-0872	10ED820J03	82	.26	.20	.14	.13
755-0818	10ED101J03	100	.21	.16	.12	.10
755-0822 755-0826	10ED121J03 10ED151J03	120 150	.29	.23	.17	.15 .17
755-0830	10ED181J03	180	.39	.30	.22	.19
755-0832	10ED201J03	200	.42	.33	.24	.20
755-0837	10ED221J03	220	.44	.35	.25	.21
755-0842 755-0845	10ED241J03 10ED251J03	240 250	.47	.37	.27	.23
755-0905	15CD050K03	5	.23	.18	.13	.12
755-0909	15CD100K03	10	.18	.14	.10	.09
755-0912	15CD120K03	12	.18	.14	.10	.09
755-0923 755-0928	15CD220J03 15ED270J03	22 27	.19	.15 .15	.11	.09
755-0930	15ED300J03	30	.19	.15	.11	.09
755-0932	15ED330J03	33	.19	.15	.11 .	.09
755-0934 755-0936	15ED360J03 15ED390J03	36 39	.19	.15	.11	.09
755-0938	15ED470J03	. 47	.19	.15	.11	.09
755-0940	15ED500J03	50	.19	.15	.11	.09
755-0942	15ED510J03	51	.19	.15	.11	.09
755-0944 755-0946	15ED560J03 15ED620J03	56 62	.19	.15	.11	.09
755-0948	15ED680J03	68	.19	.15	111	.09
755-0951	15ED750J03	75	.19	.15	.11	.09
755-0953	15ED820J03	82	.19	.15	.11	.09
755-0956 755-0960	15ED101J03 15FD121J03	100 120	.13 .21	.10	.11	.09
755-0964	15FD151J03	150	.23	.18	.13	.11
755-0973	15FD201J03	200	.26	.20	.15	.13
755-0976 755-0979	15FD221J03 15FD241J03	220 240	.28	.22	.16	.14
755-0982	15FD271J03	270	.30	.25	.18	.16
755-0985	15FD301J03	300	.29	.23	.16	.14
755-0988 755-0991	15FD331J03 15FD361J03	330 360	.32	.25	.18	.16 .19
755-0994	15FD391J03	390	.41	.32	.23	.20
755-0997	15FD501J03	500	.49	.38	.27	.24
755-0999 755-1034	15FD511J03	510	.49	.38	.27	.24
755-1034	19FD471J03 19FD511J03	470 510	.24	.19	.13	.12 .15
			102	100		

TYPE DM/CD 19 (Cont'd.)

C4I-	Mfr's Type DM or CD	pF		EACH				
Stock No.			1- 24	25- 99	100- 499	500- Up		
755-1044 755-1046 755-1048 755-1051 755-1005	19FD681J03 19FD751J03 19FD821J03 19FD911J03 19FD102J03	680 750 820 910 1000	.35 .38 .38 .41 .32	.27 .30 .30 .32 .25	.20 .21 .21 .23 .18	.17 .18 .18 .20 .16		
755-1009 755-1011 755-1015 755-1017 755-1021	19FD122J03 19FD152J03 19FD202J03 19FD222J03 19FD272J03	1200 1500 2000 2200 2700	.42 .43 .53 .64 .77	.33 .35 .42 .51	.24 .24 .29 .36 .44	.21 .21 .26 .31 .38		

	TYPES	DM/CD	19, 3	0		
755-1023	19FD302J03	3000	.83	.66	.48	.41
755-1027	19FD392J03	3900	1.10	.88	.62	.54
755-1032	19FD432J03	4300	1.22	.96	.69	.60
755-1036	19FD472J03	4700	1.36	1.08	.77	.67
755-1150	30FD512J03	5100	.75	.60	.42	.37
755-1158	30FD752J03	7500	1.50	1.20	.85	.74

	MINIATURE	INDUS	TRIAL	TYPES		
755-0620	6CD030C03	3	.28	.23	.16	.14
755-0624 755-0634	6CD050C03 6CD100K03	5 10	.28	.23	.16	.14
755-0645	6CD200J03	20	.37	.30	.21	.18
755-0659	6ED300J03	30	.40	.31	.22	.20
755-0674	6ED470J03	47	.41	.33	.23	.20
755-0702 755-0715	6FC101G03° 7CD131G03	100	.78	.63	.44	.38
755-0765	7FC201G03*	200	.70	.56	.39	.34
755-0737	7FA331G03†	330	1.12	.90	.63	.55
755-0745	7FA471G03†	470	1.27	1.02	.72	.63
755-0747	7FA511G03†	510	1.30	1.04	.73	.64

DM5 MINIATURE DUR-MICA

Size less leads, $\frac{1}{10}$ x $\frac{1}{4}$ x $\frac{1}{6}$ ". Final letter in Mfr's. Type No. indicates tolerance: $J=\pm5\%$, $K=\pm10\%$. Operate on 300 WVDC except * 100 and ±50 Av. wt. 1 oz

300 WADC EXC	ehr . 100	allu j	30. A	V. WI.	1 02		
11 () () () ()	1 m	-			EA	CH	
Apply to the state of	Stock No.	Type DM5-	pF	1- 9	10- 99	100- 499	500- Up
14-14-1	782-1005 782-1013 782-1023 782-1028 782-1031	050K 100J 150J 180J 200J	5 10 15 18 20	.35 .35 .37 .37 .25	.20 .21 .21 .14	.17 .18 .19 .19	.16 .17 .18 .18
3/16	782-1033 782-1037 782-1039 782-1041 782-1043	220J 270J 300J 330J 360J	22 27 30 33 36	.27 .25 .27 .27 .30	.15 .15 .15 .16 .17	.14 .14 .14 .15	.13 .13 .13 .13
	782-1051 782-1059 782-1065 782-1014 782-1016	500J 680J 910J 110J 111J	50 68 91 100 110	.30 .20 .45 .44	.17 .19 .33 .34 .36	.15 .19 .23 .25 .25	.14 .18 .21 .24
	782-1019 782-1021 782-1024 782-1026 782-1029	121J 131J* 151J* 161J† 181J†	120 130 150 160 180	.34 .36 .42 .48 .47	.27 .28 .37 .38 .42	.19 .19 .25 .26 .30	.18 .18 .24 .25 .29

CERAMIC CAPACITOR KIT



WRR TURIU AR ALUMINUM ELECTROLYTICS KIT



TT 15-1 MALLOBIN



"Tiny-tubular" aluminum electrolytic capacitors. Assortment contains two each of 15 ratings from 100 mfd @ 6 WVDC. WVDC. Wire leads: 2" long (±½"). Temperature Range: -55°C to 85°C., 3 to 150 volts. Tolerance: -10%, +75%. Housed in permanent cabinet. 852-4710 Type TT 15-1...........Per Kit 18.95

Mylar Capacitors

ALLIED TYPE 1MW GENERAL PURPOSE "MYLAR" WRAP FILM CAPACITORS

CAPACITORS





General purpose (polyester) mylar wrap film capacitors, Type 1MW, are designed to provide the engineer with an economically priced film wrap unit and adequate high quality for use in industrial electronic equipment, computers, communications equipment, and home entertainment products. Rated Working Voltage Direct Current: 100. Extended-foil construction and moisture protected: Epoxy end-seals are bonded to film wrapper and leads. Operating Temperature Range: -55°C to +85°C to +100°C derated 10% to +125°C derated 50%. Applicable for a wide range of industrial, consumer and military uses.

- Extended-Foil Construction
 -55° C to +85° C
- Standard Tolerance: ±10%
- Voltage Rating: 100 VDC
- **Moisture Protected: Epoxy** End-Seals Bonded to Film Wrapper and Leads

Stock	Туре	r	Size		EAC	Н			Stock	Type		Size		EAC	CH	
No.	1MW	μF	DxL	1-24	25-49	50-99	100-Up		No.	1MW	μF	DxL	1-24	25-49	50-99	100-Up
710-2010	102	.001	.156x1/2	.25	.17	.15	.13		710-2240	563	.056	.270x3/4	.28	.19	.16	.14
710-2020	122	.0012	.156x½	.25	.17	.15	.13	1	710-2250	683	.068	.280x¾	.28	.19	.16	.14
710-2030	152	.0015	.156x½	.25	.17	.15 .15	.13	- effect -	710-2260 710-2270	823 104	.082	.270x% .290x%	.28	.19 .25	.16 .20	.14
710-2040 710-2050	182	.0018	.156x½	.25	.17	.15	.13		710-2270	124	.12	.290x/s	.29	.25	.20	.17
710-2060	272	.0027	.156x½	.25	.17	.15	.13	_	710-2290	154	.15	.335x7/s	.29	.25	.20	.17
710-2000	332	.0027	.156x½	.25	.17	.15	.13	5-3-	710-2250	184	.18	.350x1	.30	.20	.17	.15
710-2080	392	.0039	.156x½	.25	.17	.15	.13		710-2310	224	.22	.385x1	.31	.21	.18	.16
710-2090	472	.0047	.156x½	.25	.17	.15	.13		710-2320	274	.27	380x11/s	.31	.21	.18	.16
710-2100	502	.0050	.156x½	.25	.17	,15	.13	-	710-2330	334	.33	.415x11/a	.34	.23	.20	.17
710-2110	562	.0056	.156x½	.25	.17	.15	.13	1	710-2340	394	.39	.460x11/4	.38	.26	.22	.19
710-2120	682	.0068	.175x½	.25	.17	.15 .15	.13	7.3	710-2350 710-2360	474 504	.47	.475x11/4	.43	.29	.24	.21
710-2130 710-2140	822 103	.0082	.175x½ .200x½	.25	17.	.15	.13		710-2300	564	.50	.495x1¼ .520x1¼	.51		.29	.25
710-2150	123	.012	.215x½	.25	.17	.15	.13		710-2380	684	.68	.570x11/4	.57	.39	.33	.29
710-2160	153	.015	.235x½	.25	.17	.15	.13	- 1	710-2390	824	.82	.585x1%	.65	.43	.37	.32
710-2170	183	.018	.255x1/2	,25	.17	.15	.13	3 8	710-2400	105	1.00	.625x1½	.76	.51	.43	.38
710-2180	223	.022	.275x5/8	.25	.17	.15	.13	11 18	710-2410	1254	1.25	.690x1½	.86	,58	.49	.43
710-2190	273	.027	.300x5/8	.25	.17	.15	.13		710-2420 710-2430	155 205	1.50	.770x1¾	1.05	.70	.60	.52
710-2200		.033	.300x5/8								1	.955x1%				
710-2210 710-2220	393 473	.039	.245x3/4 .265x3/4	.25 .26	.17	.15	.13	B	710-2440 710-2450	305	3.00	1.100x25/1s 1.250x21/2	1.71	1.15	.97 1.15	1.00
710-2230	503	.050	.270x3/4	.26	18	.15	.14		710-2430	403	4.00	1.23UXZ/2	2.01	1.33	1.13	1.00

TYPE EWF/WMF "MYLAR" TUBULAR CAPACITORS

Encased in "Mylar" film, end-sealed with thermosetting epoxy. Temperature: -55°C to +125°C; full-rated voltage at 85°C. Tolerance at ±10%. First digit(s) of Type No. in chart below indicate Working Voltage Direct Current: 05 indicates 50 WVDC; 1 indicates 100 WVDC; 2 indicates 200 WVDC; 4 indicates 400 WVDC; 6 indicates 600 WVDC. Average shipping weight is 2 oz. When ordering, please specify Type No.



		-		<u>.</u>		EA	СН	
Stock No.	Type WMF-	Type EWF-	μF	Size DxL	1- 24	25- 49	50- 99	100- Up
755-5702 755-5711 755-5715 755-5704 755-5722	05P1 05P22 05P33 05P5 05P68	05010 05022 05033 05050 05068	.1 .22 .33 .50 .68	1/4X13/18 21/64X13/18 13/32X13/18 13/32X11/16 12X11/16	.35 .42 .50 .62 .78	.27 .33 .40 .50	.19 .23 .28 .35 .44	.17 .21 .25 .31
755-5775 755-5728 755-5735 755-5740 755-5742	05W1 05W2 05W5 1D1 1D15	0510 0520 NO- 1A210 1A215	1.0 2.0 5.0 .001 .0015	1/2 x 1 3/8 37/6 4 X 1 5/8 27/3 2 X 1 7/8 5/3 2 X 1/2 5/3 2 X 1/2	1.09 1.80 3.40 .32 .32	.87 1.44 2.55 .25 .25	.62 1,02 1.98 .18 .18	.52 .90 1.71 .16 .16
755-5744 755-5746 755-5748 755-5750 755-5766	1D22 1D33 1D47 1D68 1S1	1A222 1A233 1A247 1A268 1A110	.0022 .0033 .0047 .0068	5/32X1/2 5/32X1/2 5/32X1/2 11/64X1/2 13/64X1/2	.32 .32 .32 .32 .24	.25 .25 .25 .25	.18 .18 .18 .18	.16 .16 .16 .16
755-5768 755-5770 755-5772 755-5774 755-5776	1S15 1S22 1S32 1S47 1S68	1A115 1A122 1A133 1A147 1A168	.015 .022 .033 .047 .068	15/64X ¹ /2 3/32X ³ /8 13/64X ⁵ /8 17/64X ³ /4 9/32X ³ /4	.28 .32 .32 .29 .35	.22 .25 .25 .23 .27	.16 .18 .18 .17	.14 .16 .16 .15
755-5753 755-5755 755-5757 755-5759 755-5761	1P1 1P15 1P22 1P33 1P47	1A01 1A015 1A022 1A033 1A047	.1 .15 .22 .33 .47	19/64X 7/6 31/64X 7/8 25/64X 1 27/64X 1 1/6 15/32X 1 1/4	.27 .36 .38 .46	.21 .29 .30 .36	.15 .20 .22 .26 .24	.13 .18 .19 .23
755-5763 755-5779 755-5780 755-5782 755-5785	1P68 1W1 1W1P5 1W2 2D1	1A068 1A10 1A15 1A20 2210	.68 1.0 1.5 2.0	9/16X1 1/4 5/8X1 1/2 25/32X1 3/4 81/64X1 3/4 5/32X 1/2	.70 .99 1.48 2.00	.56 .79 1.18 1.60 .25	.39 .57 .84 1.13	.35 .47 .70 .99 .16
755-5787 755-5788 755-5789 755-5801	2D22 2D33 2D47 2S1	2222 2233 2247 2110	.0022 .0033 .0047	5/32X1/2 5/32X1/2 11/64X1/2 15/64X1/2	.32 .32 .33 .28	.25 .25 .26 .22	.18 .18 .19 .16	.16 .16 .18

Stock	Type	Туре		Size		EA	CH	
No.	WMF-	EWF-	μF	DxL	1- 24	25- 49	50- 99	100- Up
755-5802 755-5803 755-5804 755-5805 755-5806	2S15 2S22 2S33 2S47 2S68	2115 2122 2133 2147 2168	.015 .022 .033 .047 .068	19/64X 1/4 9/32 X 5/8 17/64 X 3/4 21/64 X 3/4 11/32 X 7/8	.33 .32 .39 .29 .35	.26 .25 .30 .23	.19 .18 .22 .17 .20	.16 .16 .19 .15
755-5793 755-5794 755-5795 755-5796 755-5797	2P 2P15 2P22 2P33 2P47	2010 2015 2022 2033 2047	.1 .15 .22 .33 .47	13/32 X % 1/2 X 1/8 1/2 X 1 1/8 35/64 X 1 1/8 19/32 X 1 1/4	.37 .55 .47 .66	.29 .44 .37 .52 .48	.21 .31 .27 .37 .35	.18 .27 .23 .32 .30
755-5798 755-5808 755-5809 755-5811 755-5827	2P68 2W1 2W1P5 2W2 4S1	2068 210 No 220 4110	.68 1.0 1.5 2.0	21/32X1 % 34X1 3/4 29/32X1 3/4 83/84X1 3/8 15/64X 5/8	.88 .75 1.35 1.64	.70 .59 1.08 1.30	.50 .42 .77 .93 .23	.43 .37 .67 .81
755-5829 755-5830 755-5831 755-5820 755-5821	4S22 4S33 4S47 4P1 4P15	4122 4133 4147 4010 4015	.022 .033 .047 .1	5/16X3/4 11/32X7/6 13/32X7/6 15/32X1 33/64X11/4	.41 .36 .36 .40	.32 .28 .28 .32 .41	.23 .20 .20 .23 .30	.20 .18 .18 .20 .26
755-5822 755-5823 755-5824 755-5825 755-5835	4P22 4P33 4P47 4P68 4W1	4022 4033 4047 4068 410	.22 .33 .47 .68 1.0	%1ex1% 19%2x15% 45%4x15% 11/64x13% 76x2	.49 .96 1.16 1.16 1.37	.38 .77 .92 .92 1.09	.27 .54 .66 .66	.24 .47 .57 .57
755-5838 755-5841 755-5857 755-5859 755-5861	4W2 6D1 6S1 6S22 6S47	420 6210 6110 6122 6147	2.0 .001 .01 .022 .047	1 1/4 x 2 1/4 1 1/6 4 X 3/4 1 1/6 4 X 3/4 2 1/6 4 X 1/6 2 1/6 4 X 1/6	2.44 .52 .41 .52 .41	1.96 .41 .33 .41 .33	1.39 .29 .23 .29 .23	1.21 .26 .20 .26 .20
755-5850 755-5852 755-5854 755-5864	6P1 6P22 6P47 6W1	6010 . 6022 6047 610	.1 .22 .47 1.0	33/64X13/6 21/32X15/8 55/64X2 111/16X21/2	.39 .69 1.38 3.57	.31 .55 1.10 2.86	.22 .39 .78 2.03	.19 .34 .69 1.77

Mylar and Polystyrene Capacitors

TYPE MFP FLAT-OVAL MYLAR CAPACITORS



These flat-oval capacitors solve the tight space problem. The MFP features an all Mylar dielectric, tough yellow outer film wrap, and epoxy end seals bonded to the wrapper and leads. Units are highly moisture and humidity resistant. Copper welded leads are 1½" long minimum for easy connection to circuitry. Maximum Operating Temperature Range: -55°C to +85°C at full rated voltage. For operation at 100°C derate 10%. For operation at 125°C derate 50%. All units have standard tolerance of ±10%. In ratings of .01 mfd. or above the MFP is frequently used as an alternative to military grade types. Av. shpg. wt: 2 ounces.

	Mfr's					EA	СН	
Stock No.	Type MFP-	μF	WV DC	Size, In. LxWxT	1- 24	25- 49	50- 99	100- Up
755-2286 755-2291 755-2295 755-2275 755-2279	05S1 05S22 05S47 05P1 05P22	.01 .022 .047 .1 .22	50 50 50 50 50	13/18/64X1/64 1/2X17/64X1/64 5/4X17/64X1/32 13/18X18/64X11/84 13/18X3/6X17/64	.43 .47 .47 .54	.34 .37 .37 .43 .55	.24 .26 .26 .30 .39	.21 .23 .23 .26 .34
755-2281 755-2276 755-2302 755-2305 755-2308	05P33 05P5 05W1 05W2 05W5	.33 .50 1.0 2.0 5.0	50 50 50 50 50	13/16x3 ¹ /64x ¹⁸ /64 1 ¹ /16x ¹⁵ /32x ³ /32 1 ³ /6x ³ /16x ²³ /64 1 ³ /6x ⁶³ /64x ¹³ /32 1 ³ /6x ⁶³ /64x ¹⁸ /32	.68 .84 1.15 2.25 3.30	.54 .67 .92 1.80 2.64	.38 .47 .65 1.27 1.87	.34 .41 .57 1.16 1.63
755-2310 755-2314 755-2316 755-2318 755-2332	1P1 1P22 1P33 1P47 1W1	.1 .22 .33 .47 1.0	100 100 100 100 100	%x1\/s2x\/s2 1x1\/s2x\/s2 1\/sx\/x2\/s 1\/sx\/x2\/s 1\/xx1\/s2x\/s 1\/xx2\/s2\/s	.42 .56 .66 .68	.33 .44 .52 .54	.24 .32 .37 .38 .57	.20 .28 .33 .33
755-2341 755-2350 755-2366 755-2372	2P1 2P47 2W1 2W2	.1 .47 1.0 2.0	200 200 200 200 200	%x½x5/10 1¼x2 ² /32x½ 1¾x ³ /10x5/6 1½x1½10x2 ² /32	.60 .68 1.01 1.65	.48 .54 .81 1.38	.34 .38 .57 .94	.29 .33 .50 .82

TYPE 601PE MYLAR CAPACITORS



The space-saving design of these Mylar capacitors makes them particularly suitable for use in transistor printed circuit boards and other associated circuitry. In situations where stability with temperature change characteristics are important they make excellent replacements for the more frequently used ceramic types. Dipped epoxy coating seals winding and lead entries for high dielectric strength and humidity resistance. Operating Temperature Range: —55°C to +85°C. For operation at +125°C derate 50%. Listed capacitors rated at 50 WVDC. Tolerance: ±10@. Av. shpg. wt: 1 ounce.

				E/	ACH	
Stock No.	μF	Size, In. DxWxL	1- 24	25- 49	50- 99	100- Up
960-4020 960-4030 960-4035 960-4045 960-4055	.01 .033 .047 .10	13/32X11/32X13/64 17/32X13/32X3/16 17/32X25/64X13/64 21/32X17/32X15/64 47/64X11/16X5/16	3.12 1.50 1.57 1.77 1.95	2.81 1.20 1.26 1.42 1.56	2.04 .85 .89 1.00 1.10	1.83 .74 .78 .88

TYPE DMF DIPPED MYLAR FILM CAPACITORS



Flat pressed Mylar dielectric radial lead capacitor. The pressed configuration lends itself to use in crowded circuit boards and other similar circuitry. Casing is phenolic dipped and epoxy impregnated. This insures maximum resistance to moisture and humidity and prevents leakage even at maximum operating temperature. Maximum Operating Temperature: -55°C to +85°C. For operation at 100°C derate 10%. For operation at 125°C derate 50%. Copper-weld lead are 1½° minimum, #20 AWG. Standard Tolerance of ±10%. Av. shpg. wt: 2 ounces.

TYPE DPMS PAPER-MYLAR DIELECTRIC CAPACITORS



Combination paper-Mylar capacitor in high-impact, rock-hard dipped casing. Excellent protection against moisture, soldering iron contact and other mechanical damage. Crimped leads for uniform parallel mounting. Operating Temperature Range: -55°C to +125°C at full rated voltage. The synthetic solid thermosetting impregnate will not crack, soften or flow even at maximum operating temperature. Leads are #20 AWG tinned copper. Av. shpg. wt: 2 ounces.

	Mfr's			Size In		EA	CH	
Stock No.	Type DPMS	μF	WV DC	Inches DxL	1- 24	25- 49	50- 99	100- Up
755-1826 755-1815 755-1817 755-1820 755-1836	2S47 2P1 2P22 2P47 4S1	.047 .1 .22 .47	200 200 200 200 200 400	.450x.855 .470x1.180 .590x1.300 .730x1.60 .390x.660	.26 .27 .44 .58 .21	.20 .21 .35 .46	.14 .15 .25 .33	.13 .14 .22 .29 .10
755-1840 755-1838 755-1829 755-1845 755-1855	4S22 4S5 4P1 6D1 6D22	.022 .05 .1 .001 .0022	400 400 400 600 600	.400x.855 .415x1.150 .520x1.180 .340x.660 .340x.660	.29 .30 .34 .29	.23 .24 .26 .23	.17 .17 .19 .17	.15 .15 .17 .15 .15
755-1872 755-1883 755-1876 755-1862 755-1865 755-1869	6S1 6S33 6S5 6D68 6P1 6P25	.01 .033 .050 .0068 .1	600 600 600 600 600	.390x.870 .430x1.150 .490x1.150 .430x.690 .640x1.300 .830x1.560	.24 .36 .41 .36 .39	.19 .29 .33 .29 .30	.20 .20 .23 .20 .20	.18 .18 .20 .18 .20 .49

TYPE 663U MYLAR CAPACITORS

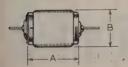


These Mylar capacitors with "skin-tight" cases lend themselves to tight space situations. Meticulously designed and engineered for long, stable life. Constructed with high insulation resistance and low dissipation factor. Epoxy end-fills standard for high humidity resistance. Operating Temperature Range: $-85\,^{\circ}\text{C}$ to $+125\,^{\circ}\text{C}$ with 50% derating. All capacitors listed have the standard $\pm10\%$ tolerance. Available in 2 Working Volt DC sizes: 100 WVDC and 200 WVDC. Average shipping weight: 2 ounces.

			100 WVDC			
		Size		EA	CH	
Stock No.	μF	In. D x L	1- 24	25- 49	50- 99	100- Up
960-6010 960-6050 960-6060 960-6070 960-6115	.001 .0047 .0068 .01 .047	5/32X1/2 5/32X1/2 6/32X1/2 6/32X1/2 15/64X1/4	.85 .91 .91 .96	.60 .64 .64 .68	.42 .45 .45 .48	.40 .39 .39 .40
960-6135 960-6185 960-6200	.10 .68 1.0	9/32X7/8 5/18X11/4 18/32X11/2	1.07 1.48 1.65	.76 1.06 1.22	.53 .75 .86	.47 .65 .75
			200 WVDC			
960-6201 960-6211	1.0	43/64X13/4 7/8X17/8	2.12 2.90	1.70 2.32	1.20 1.64	1.05 1.43

	Mfr's					EA	CH	
Stock No.	Type DMF-	μF	WV DC	Size, In. LxWxT	1-	25- 49	50- 99	100 Up
755-1740	1S22-10	.022	100	3/4X5/16X3/18	.26	.20	.14	.12
755-1745	1847-10	.047	100	3/4X11/32X7/32	.31	.25	.15	.13
755-1725	1P1-10	.1	100	3/4 X 7/16 X 5/16	.30	23	.18	.15
755-1730	1P22-10	.22	100	3/4×3/4×3/6	.43	.34	.26	.22
755-1735	1P47-10	.47	100	1 1/8 x 3/4 x 3/8	.56	.45	.34	. 29
755-1748	1W1-10	1.0	100	1 1/8 X 15/18 X 9/18	1.16	.92	.50	.43
755-1764	2S1-10	.01	200	3/4X3/16X3/16	.32	.25	.14	.12

SX POLYSTYRENE CAPACITORS



- Less than 1.3% Capacitance Change: -10°C to +70°C
 - -10 C to +70 C
- Small Size
 Low Cost
- Power Factor Less than 0.5%

Capacitors are stretched polystyrene dielectric fused to high-purity aluminum foil—produces excellent humidity barrier. Excellent where utmost capacitance stability versus temperature and time are required, due to high insulation resistance and power factor of less than 0.5%. Capacitance change from -10°C to $+70^{\circ}\text{C}$ is less than 1.3% total and is nega-

tive. Temperature coefficient, —150 ppm/°C, \pm 60 ppm/°C. These 600 WVDC types have a tolerance of \pm 5%. Temperature ranges -40° C to $+85^{\circ}$ C. Cleaning solvents: alcohol is best, freon will discolor only; Warning: chlorinated solvents will attack polystyrene. For prices and sizes on 600 WVDC types use price locator at left. Shpg. wt. 1 oz.

• High Insulation Resistance

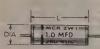
Conneite			EACH	
Capacity pF	1-	25- 99	100- 249	250 Up
5 to 300 330 to 1000 1100 to 3000	.18 .18 .23	.13 .13 .16	.11 .11 .13	.08 .08
3300 to 5000 5100 to 10,000	.28	.19	16	.12

SIZE CHART									
pF	Nominal Lgth. "A" in.	Diameter "B" In.							
5 to 300 330 to 1000 1100 to 3000 3300 to 5000 5600 to 10,000	.473 .473 .590 .590 to .790 .590 to .790	.165 to .255 .194 to .233 .238 to .348 .366 to .466 .470 to .590							

Stock No.	Type	pF	Stock No.	Type	pF	Stock No.	Type	pF	Stock No.	Type	pF	Stock No.	Type	pF
852-0005 852-0006 852-0007 852-0008	550 410 412 415	5 10 12 15	852-0024 852-0026 852-0028 852-0029	482 310 312 313	82 100 120 130	852-0042 852-0043 852-0044 852-0045	347 351 356 362	470 510 560 620	852-0057 852-0058 852-0059 852-0060	220 222 224 225	2000 2200 2400 2500	852-0074 852-0075 852-0076	282 291 110	8200 9100 10,000
852-0009 852-0010 852-0011	418 420 422	18 20 22	852-0030 852-0031 852-0032	315 316 318	150 160 180	852-0046 852-0047 852-0048	368 375 382	750 820	852-0061 852-0062 852-0063	227 230 233	3000 3300 3600			
852-0012 852-0013 852-0014	424 427 430	24 27 30	852-0033 852-0034 852-0035 852-0036	320 322 324 327	200 220 240 270	852-0049 852-0050 852-0051 852-0052	391 210 211 212	910 1000 1100	852-0064 852-0065 852-0067 852-0068	236 239 247 250	3900 4700 5000		-2 1 4 1 5	
852-0015 852-0017 852-0019 852-0020 852-0021	433 439 447 456 462	33 39 47 56 62	852-0037 852-0038 852-0039 852-0040	330 333 336 339	300 330 360 390	852-0053 852-0054 852-0055 852-0056	213 215 216 218	1300 1500 1600 1800	852-0070 852-0071 852-0072 852-0073	256 262 268 275	5600 6200 6800 7500			4 0 0 0 0 0

Selected Capacitors for Industry

TYPE MCR METALLIZED POLYCARBONATE CAPACITORS



Oper. Temp: -55° C to $+125^{\circ}$ C. Capacitance change: -2.5%, +2.0% (25 $^{\circ}$ C as ref.). Tol: $\pm 20\%$. Drift: 5% max. Dissipation factor: <.75% @ $+25^{\circ}$ C. $1\frac{1}{2}$ " min. lead length. Film wrap. Epoxy end seal. Average shpg. wt: 2 oz.

Stock	Mfr's	μF	wv .	Size, In.		EA	CH	-
No.	Туре	μг	DC	Dia. x L.	1-24	25-49	50-99	100-Up
755-2234 755-2238 755-2242 755-2244 755-2246	MCR-1P22 MCR-1P47 MCR-1W1 MCR-1W2 MCR-1W3	.22 .47 1.0 2.0 3.0	100 100 100 100 100	1%4X11/16 11/22X7/8 1/6X1 1/6X1 1/4 5/8X1 3/8	1.45 1.84 2.16 4.17 5.12	.97 1.47 1.72 3.34 4.10	.83 1.04 1.22 2.37 2.91	.72 .91 1.07 2.07 2.54
755-2248 755-2250 755-2260 755-2261 755-2262	MCR-1W4 MCR-1W5 MCR-2S1 MCR-2S15 MCR-2S22	4.0 5.0 .01 .015 .022	100 100 200 200 200	43/4×1 1/2 3/4×1 1/2 5/2×3/6 13/4×3/6 3/6×3/6	6.37 6.72 .79 .96 .88	5.10 5.38 .63 .77 .70	3.62 3.81 .44 .55	3.16 3.33 .39 .47 .43
755-2264 755-2265 755-2253 755-2254 755-2256	MCR-2S47 MCR-2S68 MCR-2P1 MCR-2P15 MCR-2P33	.047 .068 .1 .15 .33	200 200 200 200 200	1/4 x % 6 1/3 2 X 1 1/6 1/3 2 X 1 1/6 1/6 X 1 1/6 1/6 X 1 1/6 1/6 X 1 1/6	.74 1.15 .74 1.32 1.62	.60 .92 .59 1.05 1.29	.42 .66 .42 .74	.36 .57 .37 .65
755-2257 755-2258 755-2268 755-2269 755-2270	MCR-2P47 MCR-2P68 MCR-2W1P5 MCR-2W2 MCR-2W3	.47 .68 1.5 2.0 3.0	200 200 200 200 200 200	3/8×1 29/4×1 4/6×1 1/4 1/6×1 1/2	1.51 1.71 3.02 2.82 3.85	1.21 1.37 2.42 2.26 3.08	.86 .97 1.71 1.60 2.21	.75 .85 1.50 1.40 1.93
755-2271 755-2272	MCR-2W4 MCR-2W5	4.0 5.0	200 200	3/4 ×1 3/4 13/6×1 3/4	5.25 5.07	4.20 4.06	2.98 2.88	2.60 2.51

TYPE X663F METALLIZED "MYLAR" CAPACITORS



Thin oval shape. Metallized mylar dielectric is self healing. These capacitors, identical in price and size to 100 WVDC units are rated at 200 WVDC. Operating Temperature Range: $-55^{\circ}\mathrm{C}$ to $+100^{\circ}\mathrm{C}$. Derate 50% for $+125^{\circ}\mathrm{C}$. Tolerance: $\pm10\%$. Average shpg. wt: 2 ounces.

Stock	μF	Size, In.		EA	СН	
No.	μ.,	DxWxL	1-24	25-49	50-99	100-Up
960-3005 960-3010 960-3020 960-3025 960-3030	.01 .022 .047 .10	5/2×13/64×1/6 13/64×1/64×1/6 11/64×17/64×3/6 14/4×23/64×3/6	1.55 1.95 1.30 1.30 1.40	1.22 1.56 1.04 1.04 1.12	.86 .86 .73 .73	.61 .74 .70 .70
960-3035 960-3040 960-3045 960-3050 960-3055	.33 .47 .68 1.00	17/64 × 3/8 × 11/6 19/64 × 31/64 × 11/6 23/64 × 33/64 × 11/6 11/52 × 33/64 × 15/6 27/64 × 13/26 × 13/6 1/62 × 13/26 × 13/6 1/62 × 13/26 × 14/4	1.70 1.82 2.00 2.30 2.77	1.36 1.46 1.60 1.84 2.22	.96 1.03 1.13 1.30 1.57	.75 .90 .93 1.03 1.20 1.50
960-3060 960-3065 960-3070 960-3075	2.00 3.00 4.00 5.00	27/64×23/2×11/4 27/64×43/4×11/2 -1/2×57/64×11/2 33/64×23/2×13/4	3.05 3.65 4.52 5.12	2.44 2.92 3.62 4.10	1.73 2.07 2.57 2.91	1.65 1.95 2.40 2.80

D

HIGH VOLTAGE FILTER CAPACITORS

High voltage filter capacitors available in two Working Volts D.C. ratings—3000 WVDC and 5000 WVDC. Smaller than the comparable CP-70 style. Operating Temperature Range: $-50^{\circ}\mathrm{C}$ to $+65^{\circ}\mathrm{C}$ for 10,000 hours. Meets MIL-C-25D dielectric resistance specification. Capacitance Tolerance: -10% to +20%. Footed brackets, nuts and solder lugs on terminals.

2000	WVDC

Mfr's	Cap	Size	Shpg. Wt.		EACH	
Туре	μF	Inches	Lbs.	1-9	10-24	25-Up
EP-30-504	.5	21/2 x13/6x21/2	4	12.36	9.87	9.00
EP-30-105	1.0	21/2 x13/6 x33/4	4	14.08	11.80	11.21
EP-30-205	2.0	33/4x11/4x41/2.	7	18.96	15.89	15.09
	4.0	33/4×21/4×43/4	7	29.51	24.73	23.50
EP-30-805	8.0	4%6x33/4x43/4	. 7	52.69	44.17	41.96
		5000 WVDC	8.45 - 1 1	· - (1) (4)	t= 02°2	
EP-50-504 . 25	.5	21/2×13/4×4	4	13.48	11.29	10.73
EP-50-105	1.0	33/4x13/4x33/4	7	20.71	17.36	16.49
EP-50-205	2.0	33/4x21/4x43/4	7	31.22	26.16	24.85
EP-50-405	4.0	4%6x33/4x43/4	7 .	52.74	44.21	42.00
	Type EP-30-504 EP-30-105 EP-30-205 EP-30-405 EP-30-805 EP-50-504 EP-50-105 EP-50-105	Type μF EP-30-504 .5 EP-30-105 1.0 EP-30-205 2.0 EP-30-805 8.0 EP-50-504 .5 EP-50-504 .5 EP-50-105 1.0 EP-50-205 2.0	Type μF Inches EP-30-504 .5 2½χ1¾χα2½ EP-30-105 1.0 2½χ1¾χα3¾ EP-30-205 2.0 3¾χ1¼χ4¾½ EP-30-805 4.0 3¾χ2½χ4¾¾ EP-30-805 8.0 4½χ3¾χ3¾χ4¾ EP-50-504 .5 2½χ1¾χ43 EP-50-105 1.0 3¾χ2½χ1¾χ3¾ EP-50-105 1.0 3¾χ2½χ3¾χ3¾χ8½½χ1¾χ4 EP-50-205 2.0 3¾χ2½χ3¾χ3¾χ	Type μF Inches Lbs. EP-30-504 .5 2½x1¾x2½ 4 EP-30-105 1.0 2½x1¾x3¾ 4 EP-30-205 2.0 3¾x1¼x4½ 7 EP-30-405 4.0 3¾x2½x4¾ 7 EP-30-805 8.0 4¾x3¾x4¾ 7 5000 WVDC EP-50-504 .5 2½x1¾x4 4 EP-50-105 1.0 3¾x1¾x4 4 EP-50-105 1.0 3¾x1¾x4¾ 7 EP-50-205 2.0 3¾x1¾x4¾ 7	Mit's Cap Size Inches Lbs. 1-9 EP-30-504 .5 2½x1¾εx2½ 4 12.36 EP-30-105 1.0 2½x1¾εx3¾ 4 14.08 EP-30-405 4.0 3¾x1¼x4½ 7 18.96 EP-30-805 8.0 4¾εx3¾x4¾ 7 52.69	Type μF Inches Lbs. 1-9 10-24 EP-30-504 .5 2½x1¾x2½ 4 12.36 9.87 EP-30-105 1.0 2½x1¾x3¾ 4 14.08 11.80 EP-30-205 2.0 3¾x1¼x4½ 7 18.96 15.89 EP-30-405 4.0 3¾x2½x4¾¾ 7 29.51 24.73 EP-30-805 8.0 4¾x3¾x4¾ 7 52.69 44.17 5000 WVDC EP-50-504 .5 2½x1¾x4 4 13.48 11.29 EP-50-105 1.0 3¾x1¾x4 4 20.71 17.36 EP-50-105 2.0 3¾x1¾x4¾ 7 20.71 17.36 EP-50-205 2.0 3¾x1¾x4¾ 7 31.22 26.16

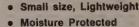
TYPE MPY TRICLAD CASE METALLIZED PAPER CAPACITORS

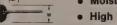


Solid resin impregnated unit. Oper. Temp: —55°C to +125°C @ full rated load. Triclad construction — outer cardboard bonded to aluminum foil which is bonded to a film interliner. Epoxy end seals. Tol: 20%. Shpg. wt. 3 oz.

Stock	Mfr's	μF	l wv	Size	EACH					
No.	Туре	2 448	DC	(in.)	1-24	25-49	50-99	100-Up		
755-2555 755-2559 755-2566 755-2568 755-2570	MPY-2P1 MPY-2P47 MPY-2W1 MPY-2W2 MPY-4P1	.1 .47 1.0 2.0	200 200 200 200 200 400	3/8 x 5/8 1/6 x 1 1/8 1/6 x 1 1/8 5/8 x 1 1/6 3/8 x 1 1/8	.56 .83 1.19 1.61 .69	.44 .66 .95 1.29	.31 .46 .67 .91	.27 .40 .58 .80		
755-2578 755-2580 755-2586 755-2596 755-2598	MPY-4W1 MPY-4W2 MPY-6P47 MPY-6W1 MPY-6W2	1.0 2.0 .47 1.0 2.0	400 400 600 600 600	11/ ₆ x113/ ₆ 13/ ₆ x23/ ₈ 5/ ₈ x17/ ₆ 23/ ₂ x113/ ₆ 23/ ₂ x23/ ₈	1.61 2.33 1.25 1.58 2.52	1.28 1.87 1.00 1.26 2.02	.91 1.32 .71 .89 1.43	.79 1.15 .62 .78 1.25		

TYPE 431P METFILM "E" CAPACITORS





- High Reliability
- Axial Leads

Unique construction gives definite space advantages over metal encased, molded or wax-coated cardboard-case tubulars of comparable ratings. Axial lead polyester-film capacitor section protected by an outer wrap of polyester-film tape. Improved end seal of plastic resin bonds with film wrap and tinned leads providing superior humidity ressitance. Well-suited for potting or encapsulating. Axial leads: 13½°. Tol: ±10%. Temp: -55°C to +55°C, now.l. Res: 1000 megohm-microfarads min. Power factor: 1% @ 25°C. Vibration: 2000 Hz. (Test Method 204, MIL-STD-202, Condition B). Shpg. wt: 1 oz.

Stock	Mfr's	-	wv	Size (In.)	EACH					
No.	Type	μF	DC	TxWxL	1-9	10-24	25-49	50-Up		
926-8026 926-8031 926-8055 926-8092 926-8036	431P-10492 431P-10592 431P-20592 431P-50592 431P-10692	1.0 2.0 5.0 10.0	200 200 200 200 200 200	11/64X11/64X3/4 546X33/64X11/4 22/64X1/6X13/4 22/64X3/4X21/4 45/64X1X21/4	1.22 2.17 3.13 4.71 8.44	1.04 1.87 2.69 4.08 7.30	.78 1.41 2.02 3.06 5.48	.46 .82 1.18 1.79 3.20		
926-8024 926-8028 926-8090 926-8033	431P-10396 431P-10496 431P-47496 431P-10596	.01 .1 .47 1.0	600 600 600 600	11/64X 19/64X 3/4 3/8 X37/64X 1 35/64X 3/4 X 1 3/4 3/4 X 11/64X 2	1.81 2.11 3.73 4.85	1.56 1.82 2.70 4.18	1.17 1.37 2.03 3.14	.69 .80 1.19 1.83		

PLASTIC DIELECTRIC GLASS-ENCASED CAPACITORS



- Designed for Continuous Operation at 85°C for 10,000 Hrs.
- Meet MIL-C-25D Specifications
- Standard ±10% Tolerance

An improved plastic dielectric capacitor impregnated with a highly purified and inhibited mineral oil. Offer extremely long life even under high temperatures. Operate 10,000 hours at 85°C at rated voltage. Operating Temperature Range: -55°C to +85°C; derate 50% at 105°C. Units meet or exceed MIL-C-25D specifications, except for high altitude flashover. Capacitance tolerance: ±10%. Mounting terminals are 8-32x½-in. long for diameters of ¾-in. diameters or larger; smaller units have #18 tinned copper axial pigtails. Hard glass pillar container.

2000 WVDC Av. shpg. wt. 4 oz.

Stock	Mfr's	Cap	Size (Inches)	EACH					
No.	Type	μF	(Dia. x L.)	1-9	10-24	25-49	50-Up		
884-0418 884-0406 884-0414 884-0422	OF-20-503 OF-20-104 OF-20-254 OF-20-504	.05 .1 .25 .5	3/4 x1 3/4 3/4 x2 1/4 29/ ₃₂ x2 3/4 1 3/8 x2	7.30 8.25 9.42 10.31	5.70 6.00 6.80 8.50	4.50 5.05 5.55 7.10	4.05 4.40 4.85 6.00		

3000 WVDC Av. shpg. wt., 6 oz.

884-0446	OF-30-503	.05	3/4 x2 1/4	8.34	6.50	5.45	4.50
884-0434	OF-30-104	.1	1 1/8 x1 3/4	9.78	7.55	5.90	5.15
884-0442	OF-30-254	.25	1 3/8 x2	11.25	9.00	7.50	6.45
884-0451	OF-30-504	.5	1 5/8 x2 3/4	13.74	10.90	8.80	7.50

5000 WVDC Av. shpg. wt., 8 oz.

884-0464	OF-50-103	.01	3/4 x1 3/4	9.75	7.00	5.80	4.95
884-0472	OF-50-203	.02	3/4 x2 1/4	10.87	8.70	6.23	5.35
884-0484	OF-50-503	.05	29/32 x2 1/4	11.47	10.00	8.20	6.75
884-0468	OF-50-104	.1	1 3/8 x2 1/4	15.41	13.50	10.90	9.00
884-0476	OF-50-254	.25	1 5/8 x3	13.29	11.00	9.50	8.60
884-0488	OF-50-504	.5	1 5/8 x6	15.31	12.90	11.80	10.50

8000 WVDC Av. shpg. wt., 1lb., *3 lbs.

884-0520 884-0508 884-0524 884-0512	OF-80-502 OF-80-103 OF-80-503 OF-80-104*	.005 .01 .05	3/4×1 3/4 3/4×2 1/4 1 3/8×2 3/4 1 5/8×3 5/8	10.03 11.21 12.40 14.03	8.85 9.50 10.50 11.60	7.10 7.40 9.80 10.85	5.90 6.00 9.00 10.00
			1 /8110 /8				

10,000 WVDC Av. shpg. wt., 11/2 lbs.

884-0543	OF-100-202	.002	3/4 × 19/32	12.85	10.60	8.46	7.06
884-0535	OF-100-103	.01	29/32×21/4	13.35	11.10	8.90	7.45
884-0547	OF-100-203	.02	1 ½ x2 3/4	14.50	11.60	9.70	8.50
884-0552	OF-100-503	.05	15/8 x 23/4	17.06	13.60	11.70	10.50
884-0539	OF-100-104	.1	1 5/8 x5	19.02	14.90	12.50	11.30

20,000 WVDC Av. shpg. wt., 3 lbs.

884-0560	OF-200-102	.001	3/4 x3 1/2	13.13	11.00	10.20	9.55
884-0568	OF-200-202	.002	13/6 x3 1/2	13.62	11.70	10.00	8.75
884-0564	OF-200-103	.01	1 1/8 x 4 1/2	17.38	15.05	14.00	13.15

30,000 WVDC Av. shpg. wt., 4 lbs.

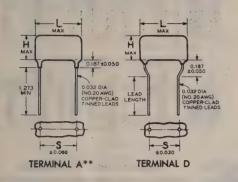
884-0589 OF-30	1 3/8 x5	25.97	22.50	21.00	19.90
884-0584 OF-30	1 5/8 x9	31.96	27.10	23.50	20.00

Metallized Paper and Polyester Capacitors

"ORANGE DROP" PRINTED CIRCUIT CAPACITORS

- For PC Mounting with Radial Leads to Facilitate Insertion
- Wide Range of Types for WVDC from 100 to 600 Volts

TYPE 225P FILMITE "E" RECTANGULAR



MAX		CASE CODE (Last digit of Type No.)					
Case				3			
4	Code	Max.	Term. A**	Term. D	нт		
	W				See listings		
i	Χ				for individual		
	Υ	1.250	0.969	0.719	capacitors		

**Available only on order for 1000 or more pieces of a given capacitance value and voltage rating.

Wound from polyester film and thin gage foll under carefully controlled atmospheric conditions. Protected against moisture by a wax-free conformal coating of epoxy. The problem of wax dripping at elevated temperatures, often encountered with wax-coated components, is completely eliminated. Specifically furnished with radial leads to facilitate insertion on boards. Tolerance, $\pm 10\%$. For operation from $-40\,^{\circ}\text{C}$ to $+85\,^{\circ}\text{C}$. Size, height by thickness; $49/_{45}{}''$ long except * 34, † 11%6", ‡ $11\%_{6}{}''$. Shpg. wt. 2 oz.

Canala	Tuna		18/1/	Size, In.		EAC	CH	
Stock No.	Type 225P	μF	DC	HxT	1- 24	25- 49	50- 99	100- Up
926-6918 926-6928 926-6938 926-6954 926-6963	15291W 22291W 33291W	.001 .0015 .0022 .0033 .0047	100 100 100	5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64	.18 .18 .18 .18	.12 .12 .12 .12 .12	.10 .10 .10 .10	80. 80. 80. 80.
926-6974 926-6921 926-6931 926-6936 926-6944	10391W 15391W 18391W	.0068 .01 .015 .018 .022	100 100 100	5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64 5/16X ¹³ /64	.18 .18 .18 .18	.13 .12 .12 .13 .13	.10 .10 .10 .10	80. 80. 80. 80.
326-6951 326-6957 326-6962 326-6966 326-6972	33391 W 39391 W 47391 W	.027 .033 .039 .047 .056	100	21/64X ¹⁵ /64 21/64X ¹⁵ /64 11/32X ¹ /4 11/32X ¹ /4 3/8X ⁹ /32	.18 .18 .22 .22	.14 .14 .15 .15	.11 .11 .12 .12 .13	.09 .09 .10 .10
926-6979 926-6987 926-6924 926-6913 926-6914	83291 W 10491 W 15492 W	.068 .082 .1 .15* .27*	100	3/8 X 9/3 2 17/3 2 X 21/6 4 17/3 2 X 21/6 4 17/3 2 X 21/6 4 3/4 X 27/6 4 25/3 2 X 18/3 2	.22 .22 .22 .27 .33	.17 .18 .18 .20 .23	.13 .14 .14 .15	.11 .11 .11 .12
926-6915 926-6916 926-6973 926-6983 926-6912	47492Y 56491Y 68491Y	.33* .47* .56† .68† 1.0†	100 100 100	23/32X ²⁷ /64 27/32X ¹ /2 57/64X ⁹ /18 29/32X ¹⁹ /32 63/64X ⁴⁷ /64	.39 .54 .67 .67	.29 .40 .56 .56	.22 .31 .43 .43 .49	.18 .27 .35 .35
926-6919 926-6939 926-6964 926-6922 926-6943	22292X 47292X 10392X	.001‡ .0022‡ .0047‡ .01‡ .0022‡	200 200 200	3/16X ¹⁵ /64 3/16X ¹⁵ /64 3/16X ¹⁵ /64 13/16X ¹⁵ /64 19/32X ¹ /4	.18 .18 .18 .18	.12 .12 .13 .12 .13	.10 .10 .10 .10	80. 80. 80. 80.
926-6958 926-6967 926-6925 926-6934 926-6946	47392X 10492X 15492Y	.033‡ .047‡ .1‡ .15‡ .22‡	200 200 200	5/8 X 9/32 5/8 X 9/32 23/32 X 3/8 3/4 X 27/64 25/32 X 15/32	.18 .22 .26 .30 .37	.14 .15 .18 .12 .23	.11 .12 .14 .10	.09 .10 .11 .08
926-6960 926-6970 926-6923	47492Y 10394X	.33† .47† .01‡	200 400	2 ³ / ₃₂ X ² / ₆₄ 2 ⁷ / ₃₂ X ¹ / ₂ 1 ³ / ₃₂ X ¹ / ₄	.41 .48 .18	.29 .28 .12	.22 .22 .10	.18
926-6968 926-6926 926-6961 926-6971	10494X 33494Y	.047‡ .1‡ .33† .47†	400	21/32X ²⁷ /64 27/32X ¹⁷ /32 11X ⁴⁷ /64 119/64X ²⁷ /32	.22 .30 .86	.17 .20 .63 1.24	.13 .15 .49	.1:

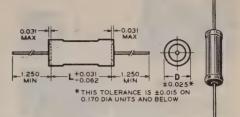
TYPE 220P DIFILM DIPPED TUBULARS



Dual dielectric (film-paper) solidly impregnated with rockhard coating for ruggedness. Double dipped in bright orange epoxy resin-beats heat and humidity. Crimped radial leads for easy mounting. Outside foil identified by black striping. Won't leak or drip. Tolerance, ±10%. Temperature, 40° C to +85° C. Size, height by thickness; 45/44″ long. Shpg. wt. 2 oz.

Stock	Mfr's		wv	Size,		EAC		
No.	Type 220P	μF	DC	HxT Inches	1- 24	25- 49	50- 99	100- Up
26-6865 26-6866 26-6867 26-6859 26-6860	2PS-S47 2PS-S50 2PS-P10	.02 .047 .05 .1	200	%x7/8 29/64X7/8 15/32X7/6 31/64X13/18 18/32X15/18	.22 .22 .22 .26 .37	.14 .15 .15 .18 .29	.11 .12 .12 .14 .22	.90 .10 .10 .11
26-6861 26-6863 26-6864 26-6873	2PS-P47 2PS-P50 4PS-S10	.25 .47 .5 .01	200 200 400	5/8 X 15/18 45/64 X 15/8 23/32 X 15/8 13/32 X 11/18	.54 .72 .72 .18	.40 .53 .53 .13	.31 .41 .41 .10	.25 .33 .33 .08
26-6874 26-6875 26-6869 26-6872	4PS-S47 4PS-P10 4PS P25	.02 .047 .1 .25	400 400 400	41/64X15/8	.22 .26 .30 .72	.15 .16 .23 .53	.12 .13 .18 .41	.10 .10 .14 .33
126-6879 126-6880 126-6881 126-6882 126-6883		.001 .0015 .002 .0025 .0033	600 600 600	21/64X11/18 21/64X11/18 21/64X11/18 21/64X11/16 23/64X11/16	.18 .18 .18 .18	.12 .12 .12 .12 .12	.09 .09 .09 .09	.07 .07 .07 .07
26-6884 126-6885 126-6886 126-6887 126-6888	6PS-D47	.0039 .0047 .005 .0056 .0068	600 600 600	3/6 X ¹ 1/16 25/64 X ¹ 1/18 25/64 X ¹ 1/16 25/64 X ¹ 1/16 13/32 X ¹ 1/16	.18 .18 .18 .18	.12 .12 .12 .12 .12	.09 .09 .09 .10	.07 .07 .07 .07
26-6889 126-6895 126-6896 126-6897 126-6898	6PS-S10 6PS-S15 6PS-S20	.0082 .01 .015 .02 .022	600 600 600	3/64X/6 31/64X/8 31/64X/8	.18 .18 .22 .22 .22	.12 .12 .15 .15	.10 .10 .12 .12 .12	.08 .08 .10 .10
26-6900 26-6901 26-6902 26-6903	6PS-S39 6PS-S47 6PS-S50	.033 .039 .047 .05	600 600 600	15/32X13/16 31/64X13/16 17/32X13/16 17/32X13/16	.22 .26 .26 .26	.16 .18 .18 .18	.13 .14 .14 .14	.10 .11 .11
926-6904 926-6905 926-6906 926-6990	6PS-S68 6PS-S82 6PS-P10	.056 .068 .082 .1	600 600 600	35/64X13/16 37/64X13/18 37/64X15/16 5/8X15/16	.26 .33 .33 .33	.20 .20 .23 .23	.15 .15 .18 .18	.12 .14 .14
126-6991 126-6992 126-6993 126-6994	6PS-P20 6PS-P22	.15 .2 .22 .25	600	43/64X15/8 3/4X15/8 25/32X15/8 13/16X15/8	.45 .72 .72 .87	.35 .53 .53	.27 .31 .41	.22 .33 .33

TYPE 192P "PACER" FILMITE "E"



Miniature capacitors have polyester film dielectric, epoxy coating. Non-inductive. -55° to +85° C: derate 50% at 105° C. Tolerance, ±10%. "R" in Mfr's Type indicates 80 WVDC, others 200 WVDC. Shpg. wt. 2 oz.

Code	Size	Code	Size	Code	Size	Code	Size
A	3/64X5/16" 11/64X5/16"	D	11/64X ¹ /2" 7/32X ⁷ /18"	G	15/64X ⁹ /16" 19/84X ¹ /2"		21/64X ⁵ /8" 21/64X ⁷ /8"
	11/64X718	F	7/32X 18 7/32X 9/16"	J	19/84X/2		21/64X13/16"

Stock	Type	μF	Size		EAC	Н	
No.	192P		Code	1- 24	25- 49	50- 99	100- Up
926-6678 926-6684	2229R8 3329R8	.0022	A	.52 .52	.30	.24	.19
926-6687 926-6690	3929R8 4729R8	.0039 .0047	A	.52 .52	.30 .30	.24	.19
926-6693 926-6695	5629R8 6829R8	.0056 .0068	B	.52 .52	.30	.24	.19
926-6670 926-6672	1039R8 1239R8	.01 .012	B	.52 .52	.30	.24	.19
926-6674 926-6676	1539R8 1839R8	.015 .018	C	.57 .57	.34	.26	.21
926-6679 926-6685	2239R8 3339R8	.022	E	.57	.34	.26	.21
926-6688 926-6691	3939R8 4739R8	.039	F	.61 .61	.36	.28	.22
926-6694 926-6696	5639R8 6839R8	.056 .068	G	.65 .68	.38	.29	.23
926-6698 926-6673	8239R8 1249R8	.082 .12	H	.68 .85	.40 .50	.31	.25
926-6675 926-6680	1549R8 2249R8	.15	J K	.78 1.10	.54	.42	.33
926-6683 926-6686	2749R8 3349R8	.27 .33	L	1.18	.69	.54 .57	.43
926-6692 926-6720	4749R8 47192	.47 .00047	M	1.64	.82 '26	.63	.51
926-6702 926-6708	10292 15292	.001	A	.38	.21	.16	.13
926-6713 926-6716	22292 33292	.0022	B	.38	.21	.16	.13
926-6718 926-6721	39292 47292	.0039	C	.38	.21	.16	.13
926-6703 926-6709	10392 15392	.01	D E	.41	.26	.20	.16
926-6714 926-6717	22392 33392	.022	F	.45	.26	.28	.16
926-6722	47392	.047	H	.54	.31	.24	.20
926-6728 926-6704	68392 10492	.068	J K	.60 .65	.35	.27	.22
926-6715	22492	.22	M	.85	.50	.39	.31

TYPE MMW MINIATURE METALLIZED FILM TUBULARS



Ideal for transistorized circuits—can be used in conventional manner or embedded in sub-assemblies. Constructed of metallized polyester film dielectric, tightly wound and encased in poly-film tape wrap; end sealed with high-density thermosetting resin. Resistant to humidity and moisture. Operating temperature range, -55°C to +85°C. Tolerance, ±20%. First digit(s) of Mfr's Type No. indicate Working Voltage Direct Current: 05 indicates 50 WVDC; 2 indicates 200 WVDC; 4 indicates 400 WVDC. Av. wt. 3 oz.

Stock No.	Type MMW-	μF	in. OxL	1- 24	25- 49	50- 99	100- Up
755-2470 755-2479 755-2480 755-2480 755-2494	05P33 05P47 05W1	.22 .33 .47 1.0 2.0	.215x11/16 .265x11/16 .315x11/16 .325x1 .405x11/4	.89 1.22 1.04 1.26 2.00	.71 .98 .83 1.01 1.60	.50 .69 .59 .71 1.14	.44 .60 .51 .63
755-2500 755-2500 755-2500 755-2510 755-2511	2P1 3 2P22 1 2P47	5.0 .1 .22 .47 1.0	.510x1¾ .240x¹¹/₁s .340x¹¹/₁s .370x1 .500x1	3.60 .75 .89 1.04 1.11	2.88 .59 .71 .83 .89	2.04 .43 .50 .59 .63	1.78 .36 .44 .51 .55
755-2520 755-253 755-252 755-252	4S47 2 4P1	2.0 .047 .1 .22	.620x1 1/4 .300x1 1/4 e .325x1 .400x1 1/4	1.82 .75 .90 1.12	1.46 .59 .72 .90	1.03 .42 .51 .63	.90 .37 .45 .55

Mfr's Size

TYPE 118P DIFILM METALLIZED PAPER AND POLYESTER CAPACITORS

Ambient temperature to 125°C without derating



Metallized paper and poleyster film dielectric. Extremely high insulation resistance. Non-inductive. Glass-to-metal solder seal terminals. May be used at extremely low voltages. Meet MIL-C-25 specifications. Ambient temp, to 125° without derating. Tol., ±10%. Shpg. wt. 3 oz.

Stock	Туре	μF	WV Size			E/	VCH	
No.	118P		DC	DC (in.) DxL	1-9	10- 24	25- 49	50~ Up
926-6065 926-6069 926-6102 926-6072 926-6078	10592S2 60592S2 10692S2	1.0 6.0 10.0		1x2%	2.87 3.64 8.44 9.20 6.96	2.16 2.73 6.33 6.90 5.22	1.62 2.05 4.75 5.18 3.20	1.08 1.37 3.17 3.45 2.61

Trimmers, Padders and Air Variable Capacitors

TRIMMERS AND PADDERS





PADDER

- Range of Values for A Variety of Applications
- Clear India Mica Dielectric • Ceramic Base

Wide selection of trimmers and padders for new equipment and replacement purposes. Ceramic base. Clear India mica dielectric. High resistance to humidity. Resilient phosphor bronze adjusting plates. Trimmers are rated 35 VDC test or 175 WVDC. Padders are rated 500 VDC test or 250 WVDC. Three turns from open to tight setting. Shpg. wt. 2 oz.

TYPE 40 MIDGET TRIMMERS 36" x 16"

Stock	Mfr's	ρF	EACH				
No.	Type	MinMax.	1-24	25-49	100-Up		
782-0402 782-0403 782-0404	402 403 404	1.5-20 4-40 7-60	.55 .67 .82	.44 .54 .66	.31 .38 .46		

TYPE 42 MIDGET TRIIMERS %" x %"

Stock	Mfr's pF		EACH				
No.	Type	MinMax.	1-24	25-49	100-Up		
782-3760	420	1-12	.55	.44	.35		
782-3761	421	2-25	. 55	.44	.35		
782-3762	422	4-40	. 65	.52	.35		
782-3763	423	7-100	.65	.52	.40		
782-3764	424	16-150	.80	.64	.47		
782-3765	425	24-200	.90	.72	.54		
782-3767	427	55-300	1.12	.90	.68		
782-3769	429	90-400	1.27	1.02	.80		

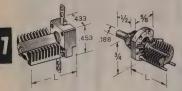
TYPE 30 PADDERS 1/4" x 15/6"

Stock	Mfr's	nF	EACH				
No.	Туре	MinMax.	1-24	25-49	100-Up		
782-0302 782-0303 782-0304 782-0305 782-0306 782-0315	302 303 304 305 306 315	15-130 65-340 115-550 190-760 170-275 1400-3055	.85 1.27 1.27 1.42 1.42 2.45	.68 1.02 1.02 1.14 1.14 1.96	.45 .72 .72 .80 .80		

TYPE 46 STANDARD TRIMMERS %" x %"

Stock	Mfr's	nF	EACH			
No.	Type	MinMax.	1-24	25-49	100-Up	
782-3786 782-3787 782-3788 782-3789	461 462 463 464	2.7-40 5-80 9-180 25-280	.45 .52 .65 .75	.39 .42 .52 .60	.35 .35 .40 .47	

TRIMMERS



Type U

Type M

TYPE U VARIABLES FOR PRINTED CIRCUIT MOUNTING

Tiny capacitors that require only ¼" sq. panel space, and up to ¾" behind. High Q, low temperature coefficient. Metal parts silver plated. Steatite ceramic. ¾" PC terminals. Peak voltage 650V except * 500V. 4 oz.

No.	Mfr's	пF	E	ACH	
	Type 189-	Max. Min.	1- 9	10- 49	50- Up
828-1207 828-1210 828-1229		6.7-1.3 9.2-1.4	.85	.66 .64	.56

TYPE L VARIABLES
Split-sleeve, silver-plated copper alloy contact. Peak voltage, 1500. Panel
space, 1%" sq. behind. † Max./Min. Av. shpg. wt. 8 oz.

	Mfr's			EACH	
Stock No.	Type 167-	pF †	1-:	10- 49	50- Up
28-1115 28-1118	1-1 4-1	10-2.2 75-5.2			

TYPE M MINIATURE VARIABLES Bridge-type stator term. Peak voltage, 1250 V, except *850V. Panel space %4 x %4", up to 11%" behind. %6" dia. slotted shaft. ¼4"-32 mtg. bushing. 2 oz. † Max/Min.

	Mfr's			EACH		
Stock No.	Type 160-	pF †	1-	10- 49	50- Up	
828-1152		5.0-1.5			.95	
828-1154		8.7-1.8				
828-1157		14.2-2.3				
828-1166		19.6-2.7				
828-1164	130-1	32.0-3°	2.15	1.73	1.30	



MICRO J CERAMIC DISC TRIMMER

MICRO

A

Vertical tuning subminiature trimmer capacitor — less than 1/4"D. x ½"L. 200 VDC. High-alumina stator provides lower losses. * Max./Min. Wt. 1 oz.

	Mfr's		EA	CH
Stock No.	Type 274-	pF	1- 24	25- Up
828-1509 828-1520 828-1525	20-5	20-3.5	5.00	3.95

SUB-MINIATURE "T" TRIMMERS

* Horiz.; † Vert.; ‡ Min./Max.; § Lgth.". 1 oz.

Stock No.	Type 187-	Fig.	pF ‡	8	EA.
828-1183 828-1185 828-1187 828-1193 828-1195 828-1197	0103-105° 0106-105° 0109-105° 0103-005† 0106-005† 0109-005†	A A B B B	1.3-5.4 1.7-11.0 1.9-15.7 1.3-5.4 1.7-11.0 1.9-15.7	.36 .47 .58 .36 .47	.98 1.10 1.15 .98 1.05 1.15

SUB-MINIATURE TEFLON TRIMMERS

Uniform linear tuning. Temp. coeff., +50 ±50 ppm/°C. Temp. range, -55°C to +150°C. Peak voltage, 2000 VDC. 1 oz.

-	-	Mfr's		οF	Tor	oue	EA	CH
	tock No.	Type 273-	Mtg.	Max. Min.	Oz.	łn.	1-	25- Up
	8-1500 8-1501	0001-001	PC Solder	1.525	.2	3.0	.90 1.05	.60

CERAMIC DISC CAPACITOR KIT



- Convenient Metal Storage Cabinet
- For Bypass and Non-Critical Coupling **Applications**

KIT—60D Disc Capacitor Kit. Contains 245 of the most widely used general purpose disc capacitors in 600 and 1000 WVDC units. For bypass and noncritical coupling applications. Includes five each: 5, 10, 15, 20, 22, 25, 33, 47, 50, 68, 120, 150, 180, 220, 250, 270, 300, 330, 390, 470, 500, 680, 820, 1500, 2200, 3000, 4700, 6800, 20,000, 50,000 pF. Ten each: 100, 200, 2000 pF. Fifteen each: 5000 pF. Twenty-five each: 1000, 10,000 pF. Sturdy 15-drawer cabinet.

748-0765 . 40.83

N50 SINGLE SECTION CAPACITOR



- High Capacitance in Small Frame
- Insulation Conforms to MIL-D-3115

For a wide range of applications including AM radios, test equipment and educational kits. Capacitance, 16.0 to 365 pF. Capacitance increases with counterclockwise rotation. Shaft ¼" dia., 1" long. Front and rear frame tapped #6-32, 3. places, 120° apart for mounting. Has 33 plates. Size, 1% x 1% x 1%" high. Available in lower pF values.

	Stock No.	Mfr's	Cap.,		EACH	
		Type	pF	1-9	10-49	50-Up
	695-1000	N50	16.0-365	3.23	2.58	1.87

VARIABLE CAPACITORS

· No Split Bushings



Glass and ceramic dielectric direct-traverse trimmers. For commercial and industrial applications not requiring MIL specs. Positive spring-loaded torque mechanism. No split bushings to cause erratic tuning, noise or short adjustment life. Std. panel mount construction. Dia. 1764". Glass, except a ceramic dielectric. Av. shpg. wt., 1 oz.

PANEL MOUNTING TYPES

	Mfr's						EACH		
Stock	Type	pF Range	W۷	Lt.	14	10-	25- 99	100-	200-
No.									
827-4784	54G	0.8-13	2500	13/16	2.75	1.65	1.48	1.37	1.24

PRINTED CIRCUIT BOARD TYPES

827-4787 56C° 5.0-50	750 113/64	3.25 1.95	1.75 1.62	1.46
827-4791 58G 1.0-12	750 113/64	2.75 1.68	1.48 1.37	1.24
827-4789 27G .8 to 18	750 127/32	3.00 2.40	1.70 1.58	1.40

MODEL APC TRIMMERS



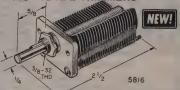
Type APC-5813. Capacitance, 7-29.2 pF. Shaft, ¼", extends ¾". Thread, ¾-32. Breakdown, 1000 VRMS. L., 2½".

Type APC-5814. Capacitance, 3.7-35.2 pF. Shaft, ¼", extends ¾". Thread, ¾-32. Breakdown, 500 VRMS. L., 12¾-".

Type APC-5815. Capacitance, 7.2-151 pF. Shaft, ¼", extends ¾-". Mounting posts ¾-" long. Breakdown, 500 VRMS. L., 2¾-".

732 10119.	DIGNY	Jown, Ju	VINIV	O- L.,	2732
				EACH	
Stock No.	Type APC-	Cap. pF	1-9	10- 49	50- Up
695-2200 695-2100 695-2300	5813 5814 5815	7-29.2 3.7-35.2 7.2-151	2.60 2.27 3.10	2.08 1.82 2.48	1.56 1.38 1.86

MODEL APL TRIMMERS

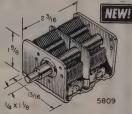


Type APL5816. Capacitance, 10.5-324 pF Plates, 39. Shaft, ¼", extends ½". L., 2½". Type APL5817. Capacitance, 5-56.8 pP Plates, 13. Shaft, ¼", extends ½". L.

Type APL5818. Capacitance, 8.7-114.9 pF. Plates, 26. Locking bearing construction. Shaft, 1/4", extends 31/4". L., 223/4".

				EACH	
Stock No.	Type APL-	Cap., pF	1-	10- 49	50- 'Up
695-3300		10.5-324	3.47	2.78	2.08
895-3100 595-3200		5-56.8 8.7-114.9			1.50

MODEL S2, S3 TRIMMERS



Type \$2-5809. Two sections, 10.3-365 pF each section. Shaft $\frac{1}{4}$ ", $\frac{1}{8}$ " long. Has 12 PF trimmer each section. CCW rotation. Three 6-32 mtg. holes. $\frac{2}{3}$ k x $\frac{1}{3}$ k x $\frac{1}{8}$ k" h. Type \$3-5810. Three sections, 12.5-432 pF each section. Shaft $\frac{1}{4}$ ", $\frac{1}{8}$ " long. Has 12 pF trimmer each section. Three mtg. holes. $\frac{3}{6}$ k x $\frac{1}{3}$ k x $\frac{1}{6}$ k x $\frac{1}{8}$ k x \frac

Stock	Mfr's	Cap.,			
No.	Туре	pF	1-24	25-99	108- Up
695-4100 695-4200	S2-5809 S3-5810	10.3-365	7.95 7.95	6.36	4.61

MODEL R42-2 TRIMMER



Type R42-2-5811. Two section. 12 pF trimmers. Oscillator section, 8-97 pF; RF section, 10.5-365 pF. Shaft ¼", 1" long. The mounted. 11½ x 1½ x 1½ x 1½ migh. Type R42-4-5812. Four gang—2 FM, 2 AM. FM sections each 5.7-20.6 pF. AM oscillator section, 6.4-76.8 pF; AR RF section. 7.2-170.6 pF. Shaft ¼4", 1½" long with 156" flat.

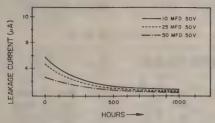
Stock	Type	EACH		
No.	R42-	1-24	25-99	100-Up
695-5100 695-5200	2-5811 4-5812	3.97 6.25	3.18 5.00	2.31

Specify Stock No., Mfr's Type and Capacitance When Ordering

Allied Miniature Electrolytics at Reasonable Prices

RADIAL AND AXIAL LEAD MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

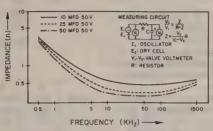
- . Top quality electrolytics at low price
- Ultra small—excellent, dependable unit for all types of equipment
- Feature all welded construction no pressure joints to break down



LEAKAGE CURRENT CURVE

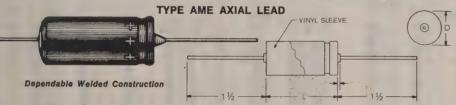
Miniature aluminum-cased electrolytic capacitors use high purity (99.99%) etched aluminum foil. Effectively operate at up to 85°C; ideal for both transistorized and tube circuits. Offer excellent performance characteristics in a wide range of electronic equipment, including: TV, high-fidelity, business machines, control devices, test instruments and computer periph-

- Offer low leakage current and long shelf life
- Stands temperatures to 85° C (185° F)
- For transistorized and tube circuits
- Bonded plastic insulating sleeve



FREQUENCY CHARACTERISTIC CURVE

eral equipment. All-welded construction assures increased ruggedness and resistance to environmental extremes; eliminates corrosion and electrolyte leakage. Extremely low leakage current. Insulated with permanently-bonded plastic sleeve. Replace other manufacturers' types as shown in "Cross-Reference Guide" at bottom of page.



Compact capacitors for original equipment or replacement use in all kinds of communications, data processing, high fidelity and test equipment. Operating temperature: -30° to +85° C. Tolerance: -10%, +100%. DC leakage current: 5 microamperes or 0.03 V x C (applied DC voltage times capacitance in microfarads), whichever is greater. Leads: axial, 1¼-inch long minimum, #20 or #22 tinned copper.

CASE SIZES-TYPE AME AXIAL LEAD

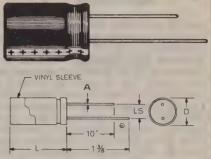
Case Code	Sizes, Inches Dia. x Lgth.	Case Code	Size, Inches Dia. x Lgth.		
1	.216 x .551	15	.413 x .827		
2	.256 x .591	6	.413 x .827		
3	.335 x .748	7	.413 x .827		
4	.413 x .827	8	413 x .827		

TYPE AME AXIAL LEAD PRICE LIST

Stock Allie		Cap.	14/1/	0			EAC	Н		. 01.	Allina	0	MIN				EAC	Н	
No.	Type		DC	Case	1-				1000-	Stock No.	Allied Type	Cap.	WV DC	Case	1-				1000-
					49	99	499	999	Up						49	99		999	Up
710-1176	3-A-100	100	3	3	.46	.36	.22	.17	.154	710-1251	2-G-010	10	25	2	.44	.35	.21	.16	.141
710-1190	2-B-020	20	6	2	.44	.35	.21	.16	.141	710-1252	3-G-015	15	25	3	.44	.35		.16	.141
710-1191	2-B-050	50	6	2	.46	.36	.22		.154	710-1253	3-G-020	20	25	3	.46	.36	.22	.17	.154
710-1192	3-B-100	100	6	3	.46	.36	.22		.154	710-1254	3-G-025	25	25	3	.46	.36	.22	.17	.154
710-1193	6-8-200	200	6	6	.56	.44	.26	.20	.192	710-1255	3-G-030	30	25	3	.46	.36	.22	.17	.154
710-1214	1-D-010	10	12	2	.42	.33	.28	.20	.15	710-1256	4-G-035	35	25	4	.46	.36	.22	.17	.154
710-1215	3-D-050	50	12	3	.46	.36	.22	.17	.154	710-1258	4-G-050	50	25	4	.46	.36	.22	.17	.154
710-1216	4-D-100	100	12	4	.46	.36	.22		.154	710-1260	7-G-100	100	25	7	.51	.40	.24	.18	.165
710-1218	8-D-250	250	12	8	.58	.47	.39	.28	.21	710-1270	1-J-001	1	50	1	.42	.33	.28	.20	.15
710-1228	1-E-005	5	15	1	.42	.33	.28	.20	.15	710-1271	1-J-002	2	50	1	.42	.33	.28	.20	.15
710-1229	1-E-010	10	15	2	.42	.33	.28	.20	.15	710-1274	2-J-005	5	50	2	.44	.35	.21	.16	.141
710-1230	2-E-020	20	15	2	.44	.35	.21	.16	.141	710-1277	3-J-010	10	50	3	.44	.35	.21	.16	.141
710-1231	2-E-025	25	15	2	.44	.35	.21	.16	.15	710-1278	4-J-015	15	50	4	.46	.36	.22	.17	.154
710-1232	3-E-030	30	15	3	.46	.36	.22	.17	.154	710-1279	4-J-020	20	50	4	.46	.36	.22	.17	.154
710-1233	3-E-050	50	15	3	.46	.36	.22	.17	.154	710-1280	4-J-025	25	50	4	.46	.36	.22	.17	.154
710-1234	4-E-100	100	15	4	.51	.40	.24	.18	.165	710-1284	7-J-050	50	50	7	.51	.40	.24	.18	.165
710-1235	6-E-200	200	15	6	.58	.47	.39	.28	.21	710-1295	2-M-002	2	100	2	.50	.39	.24	.19	.173
710-1245	1-G-001	1	25	1	.42	.33	.28	.20	.15	710-1299	4-M-010	10	100	4	.79	.61	.39	.30	.266
710-1246	1-G-002	2	25	1	.42	.33	.28	.20	.15	710-1310	3-N-001	1	150	3	.51	.40	.24	.18	.165
710-1247	1-G-004	4	25	1	.42	.33	.28	.20	.15	710-1311	3-N-002	2	150	3	.56	.44	.27	.21	.195
710-1248	1-G-005	5	25	1	.42	.33	.28	.20	.15	710-1312	3-N-005	5	150	3	.69	.53	.34	.26	.244
710-1249	2-G-006	6	25	2	.44	.35	.21	.16	.141	710-1313	4-N-010	10	150	4	.80	.62	.40	.30	.288
710-1250	2-G-008	8	25	2	.44	.35	.21	.16	.141	710-1314	8-N-020	20	150	8	.92	.71	.46	.35	.334
				CRO	22	-RI	EE	EDI	ENC	F GILLDE	OF	LIA	IFD	TY	PES	ST	O.	OT	HER

TYPE ARME

CAPACITORS



TYPE ARME RADIAL LEAD

Operating temperature: -25°C to $+85^{\circ}\text{C}$. Tolerance: less than 5 μF , -0, +150%; 5 μF and over, -0, +100%. Leakage current: 0.03 V x C (DC voltage times capacitance in μF) +5 μA max. Dissipation factor: 6.3 V, 30%; 10 V, 25%; 16-50 V, 20%. Life test: after 500 hours at 85°C with maximum rated voltage, capacitance will be within 85% and ESR within 130%. Low temperature: at -20°C , capacitance will be 80% minimum of the value originally measured at $+25^{\circ}\text{C}$. Mechanical: leads withstand 4 bends without breakage. All units marked with voltage and rated capacitance. † Indicates new standard values which are in accordance with EIA, IEC and JIS specifications.

CASE SIZES-TYPE ARME RADIAL LEAD

Case Code	Sizes, Inches Dia. x Lgth.	Lead AWG	Case Code	Size, Inches Dia. x Lgth.	Lead AWG
Α	.197 x .433	25	G	.512 x .807	25
В	.236 x .433	25	Н	.512 x .965	25
C	.315 x .453	25	J	.591 x .965	21
D	.394 x .492	25	K	.591 x 1.165	21
E	.394 x .650	25	L	.591 x 1.378	21
F	.394 x .748	25	М	.787 x 1.625	21

TYPE ARME RADIAL LEAD PRICES

On all	A11:	Can	18/1/	Case		EA	CH					
Stock No.	Allied Type	Cap., μF		Code	1-	10-		1000-				
NO.	Туро				9	99	999	Up				
710-1327	A-D-010	10	0-10	Α	.21	.18	.16	.12				
710-1329	D-D-050	147-50	0-10	C	.24	.21	.17	.13				
710-1331	G-D-250	250	0-10	F	.43	.35	.30	.24				
710-1332	M-D-1000	1000	0-10	K	.72	.66	.59	.46				
710-1336	E-E-050	147-50	0-16	D	.27	.24	.19	.16				
710-1330	E-E-100	100	0-16	В	.50	.40	.28	.25				
710-1338	J-E-250	250	0-16	Ğ	.49	.40	.30	.24				
710-1339	L-E-500	1470-500	0-16	J	.55	.45	.34	.26				
710-1340	N-E-1000	1000	0-16	L	.73	.67	.59	.46				
710-1352	B-G-010	10	0-25	В	.27	.21	.18	.13				
710-1353	D-G-025	25	0-25	С	.29	.25	.22	.16				
710-1355	G-G-100	100	0-25	F	.48	.38	.27	.24				
710-1356	K-G-250	250	0-25	H	.93	.74	.53	.46				
710-1357	N-G-500	1470-500	0-25	L	.75	.67	.59	.46				
710-1372	E-H-025	25	0-35	D	.33	.28	.23	.16				
710-1373	F-H-050	147-50	0-35	F	.36	.31	.26	.20				
710-1354	F-H-050	50	0-35	E	.58	.46	.33	.29				
710-1374	J-H-100	100	0-35	G	.37	.34	.30	.24				
710-1375	L-H-250	250	0-35	J	.63	.53	.42	.30				
710-1350	A-J-001	1	0-50	Α	.24	.16	.12	.11				
710-1510	D-J-010	10	0-50	С	.33	.31	.22	.16				
710-1520	R-H-1000	1000	0-50	M 1		1.00	.84	.70				
				-								

CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

Lead Style	ALLIED Type	ARCO Type	Sprague Type	Cornell- Dubilier	Mallory Type,	Amperex Type	General 1	General Instruments	Matsu- shita
Axial	AME	ME	TE; 30D; 500D; WH11D	NLW · ·	• TT = ,1 •	. C426; C427	76F; 77F	: 974	ECE-B
Radial	ARME	RME	502D	PC				975	ECE-A

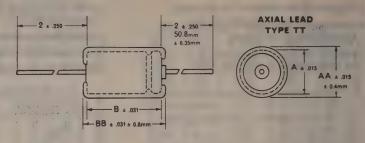


The TT axial-lead aluminum electrolytic capacitor is designed for maximum capacitance in the smallest case size. Offers a temperature range of -40°C to +85°C. Aluminum can with rubber end seal.

Electrical Test Conditions: Accuracy of $\pm 2\%$ under standard temperature of 25°C. Rated DC Working Volts: AC ripple voltage does not exceed 10% of rated DC working voltage. Dissipation Factor: Low ESR for longer life and dependable operation.

Low DC Leakage: DCL in microamperes is less than the value given. Lite: Results after 85°C for 1000 hours at rated voltage of the capacitor—capacity does not decrease more than 1% from the initial value. ESR does not increase more than 150% from the original limit. DCL remained within the original limits.

Surge Voltage: Withstands surge voltage applied at a rate of ½ minute on, 4½ minutes off, for 1000 successive cycles at 25°C. Results—capacitance does not change more than 10%. ESR does not increase more than 150% from the original limit. DCL remained within original limit. Vibration Characteristics: Withstands simple harmonic motion having an amplitude of .03" (maximum total of excursion of .06"), the frequency being varied uniformity between the approximate limits of 55 cps.



SIZE CHART

			012	L 0117	****			
CODE	A Dia. (In.)	B Lgth. (In.)	CODE	A Dia. (In.)	B Lgth. (In.)	CODE	A Dia. (In.)	B Lgth. (In.)
1 A .	1/4	5/8	L	3/8	13/8	٧	7/16	21/4
4150B 011	1/4.715	11/16	M	3/8	1½	W	7/16	21/2
C .	1/4	3/4	N	1/2	1	X	1/2	13/4
O of	5/16	5/8	0	7/16	13/4	Υ	1/2	2
E in	5/16	11/16	Р	7/16	11/8	AA	1/2	13/8
F	5/16	: , 3/4	R	7/16	13/8	BB	5/8	13/8
in ingra	3/8	3/4.	S	5/8	1	CC	5/8	11/8
V Hiel	3/8	7/8	T	7/16	13/4	DD	1/2	11/8
81 g aj 1 . a	3/8	1,4100	U s	1/18 :	.2	EE O	3/8	5/8
K	3/8	11/8	100					

0. 1	Mfr's		1404		135.00	,	. 3)	EAC	CH .			_
Stock No.	Type TT	μF	DC	Case Code	1- 24		25- 49		50- 99		100- Up	
852-4502 852-4503	3X250AB 3X500A	250 500	3	G	.87		.69		.49		.43	
852-4506	3X1000A	1000	. 3	N	.90		.72		.51		.45	
852-4509 · 852-4510	3X3600 6X1	3600	3	W	.91	-1	.73		. 60 . 26		.50	
852-4510	6X30	30	6	Δ	.46		.36		.26		.23	
852-4522	6X35	35	6	A "	.46		.36	1	.26		.23	
852-4524 852-4526	6X50A	50	6	A	.46	- 1	.36	1	.26		.23	
852-4527	6X75A 6X100A	75 100	6	A	.52	.	.54	,	.29	,-	.26	
852-4528	6X150A	150	6	D	.71	2	.57	-	.40	_	.35	
852-4529	6X200B	200	. 6:	- G :	.71	1	.57		40		.35	
852-4530 852-4532	8X250A 6X400A	250 400	6 6	G	.74		.59	. 7 4	42		.37	9
852-4533	6X560	560	6	K	.80		.64		45		.40	-
852-4534	6X1000A	1000	6	N .	.96	. [.77		.55		.48	
852-4535 852-4536	6X1500A 6X2000A	1500	. 8	0	1.02		.82		.58		.51 .54	3
852-4537	6X3000	3000	6	Ϋ́	1.15		.92	1,3	. 65		.57	í
852-4539	10X6	8	10	A	.46		.36		.26	,	.23	3
852-4542	10X25	25	10	A	.46	- 1	.36	- 1	.26		.23	. 3
852-4543 852-4545	10X30A 10X50A	30 50	10	A	.53		1.42		.30		.27	
852-4547	10X100A	100	10	D à	.71	%	.57		.40		.35	
852-4548	10X200A	200	- 10	G	.78	1	.62		.44		.39	
852-4549 852-4550	10X300 10X400	300 400	10	H	.80	-	.64		.45		.40	, ń
852-4551	10X500	500	10	Κ.	.80	: 9	. 64	1	.46		.40	
852-4552	10X600	600	10	Lin	.80		. 64	- 1	.46		.40	
852-4553 852-4554	10X800 10X1000A	800 1000	10	P AA	.90		.72	. ,	.51 .55		.44	
852-4555	10X1500	1500	10	T	1.04		. 83		.59		51	
852-4556	10X2000A	2000	10	BB	1.09	. 6	.87	1	.62		.54	- 1
852-4557 852-4564	10X2400 12X1000A	1000	10	Y AA	1.24		.99		.70		.61	
852-4565	12X1000A	1500	12	CC :	1.10		.88		. 63		.55	
852-4566	12X2000A	2000	12	BB .	1.24	11.	.99		70		.62	
852-4571 852-4574	15X5 15X10	10	15	A -	.48		.38		.27		.24	3
852-4575	15X15	15	15	A	.48	-1	.38		.27		.24	
852-4576	15X20A	20	15	Α.	.46	1	E .36	1	26		.23	
852-4577	15X25A	25	15	A	.46	15.7	36		. 26		23	
852-4578 852-4580	15X30A 15X40B	30	15	A	.52	1	.41		. 29	٠.	.26	
852-4581	15X50A	50	15	A	.52	7.	.41		.29		.26	
852-4583	15X100A	100	15	A	.71		.57		.40		.35	
852-4584 852-4585	15X150A 15X200A	150	15	F G	.74		.59	111	. 42		.37	
852-4586	15X260	260	15	H	.77	3 -	: .62		44		39	
852-4587	15X350	350	15	K	.80		.64		.48	1	.40	1
852-4588 852-4589	15X400 . 15X500 .	400 500	15	K	.90		.72				.45	
852-4590	15X600	600	15	M	.90	1.			S .51		45	

No. Type		Stock	MILES		wv	Case	1 1. 1. 2 2 2 A LA	EA		
S52-4591 15X800 800 15 R							1-	25-		
September Sept		NO.	TT	μΓ	DC	Cons	24	49	99	Up
852-4593	-	252 AEQ1	15V000	900	15	D	98	78	58	
852-4891 15X1500A 1500 15 CC 1.09 87 62 54 852-4801 25X15A 15 25 A 48 38 27 24 852-4603 25X15A 15 25 A 46 37 26 23 852-4604 25X25A 20 25 A 52 41 29 28 852-4604 25X25A 35 25 C 52 41 29 28 852-4606 25X50A 50 25 E 68 55 39 34 852-4608 25X100B 100 25 B 71 57 40 36 852-4610 25X200 200 25 K 80 64 46 40 852-4611 25X300 300 25 K 80 64 46 40 852-4613 25X600 600 25 T 1.08 87			15 V 1000 A							
852-4601 25X10 10 25 A 48 .38 .27 .24 .852-4602 25X15A 15 25 A 46 .37 .26 .23 .852-4603 25X20A 20 25 A .52 .41 .29 .26 .852-4604 25X25B 25 .25 A .52 .41 .29 .26 .852-4604 25X25B 25 .25 A .52 .41 .29 .26 .852-4605 25X35A 35 .25 .25 E .68 .55 .39 .34 .852-4607 25X75A 75 .25 E .68 .55 .39 .34 .852-4607 25X75A 75 .25 E .67 1 .57 .40 .36 .852-4608 25X100B 100 .25 B .74 .60 .42 .37 .852-4608 25X100B 100 .25 B .74 .60 .42 .37 .852-4610 .25X200 .200 .25 K .80 .64 .46 .40 .852-4610 .25X200 .200 .25 K .80 .64 .46 .40 .852-4611 .25X300 .300 .25 M .90 .72 .51 .45 .852-4612 .25X400 .400 .25 H .96 .77 .55 .48 .852-4612 .25X400 .800 .25 T .10.8 .87 .62 .54 .852-4614 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4615 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4615 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4616 .25X200 .200 .25 K .80 .80 .87 .62 .54 .852-4616 .25X200 .200 .25 K .80 .80 .87 .62 .54 .852-4616 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4616 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4616 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4616 .25X800 .800 .25 T .10.8 .87 .62 .54 .852-4616 .25X800 .800 .25 X .10.8 .87 .62 .54 .852-4616 .50X1 .1 .50 A .46 .37 .26 .23 .852-4619 .50X4 .4 .50 A .46 .37 .26 .23 .852-4619 .50X4 .4 .50 A .46 .37 .26 .23 .852-4619 .50X6 .5 .50X20 .25 .00 A .46 .37 .26 .23 .852-4619 .50X6 .5 .50X20 .25 .00 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 .50 A .46 .37 .26 .23 .852-4624 .50X58 .5 .50 .50 A .46 .37 .26 .23 .50X50 .25 .50 .50 A .46 .37 .26 .23 .50X50 .25 .50 .50 A .46 .37 .26 .23 .50X50 .25 .50 .50 A .46 .37 .26 .23 .30 .27 .50X5A .5 .50 .50 .50 .50 .50 .50 .50 .50 .50										
852-4602 25X15A 15 25 A .46 .37 .26 .23 852-4604 25X20A 20 25 A .52 .41 .29 .26 852-4604 25X25B 25 25 A .52 .41 .29 .26 852-4606 25X50A 30 25 E .68 .55 .38 .34 852-4607 25X50A 75 25 G .71 .57 .40 .36 852-4608 25X100B 100 25 B .74 .60 .42 .37 852-4619 25X100 200 25 K .80 .84 .46 .39 852-4611 25X300 30 25 M .90 .72 .51 .45 852-4613 25X600 800 .25 T 1.08 .87 .62 .54 852-4614 25X600 800 .25 X <t< td=""><th></th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
B52-4603								.30		
852-4604 25X25B 25 25 A 52 41 29 26 852-4606 25X35A 35 25 C 52 A1 29 26 852-4606 25X35A 35 25 E .68 .55 .39 .34 852-4608 25X100B 100 25 B .74 .60 .42 .37 852-4609 25X150 150 25 J .78 .62 .44 .39 852-4610 25X200 200 25 K 80 .64 .46 .40 852-4611 25X300 300 25 M .96 .77 .55 .48 852-4613 25X500 500 25 DD 1.02 .82 .59 .50 852-4613 25X500 800 25 X 1.08 .87 .62 .54 852-4613 25X800 800 25 X 1.08										
852-4605 25X35A 35 25 C .52 41 29 26 852-4607 25X75A 75 25 G .71 .57 .40 .36 852-4608 25X15D 150 25 J .78 .62 .44 .39 852-4610 25X15D 150 25 J .78 .62 .44 .39 852-4611 25X200 200 25 K .80 .64 .46 .40 852-4612 25X400 400 25 R .36 .77 .55 .48 852-4612 25X400 400 25 R .36 .77 .55 .48 852-4613 25X500 500 25 D .102 .82 .59 .50 852-4613 25X500 500 25 T .108 .87 .62 .54 852-4614 25X600 600 25 T .108 .87 .62 .54 852-4615 25X800 800 25 X .108 .87 .62 .54 852-4615 50X1 1 50 A .46 .37 .26 .23 852-4617 50X2 2 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X6B 6 50 E .48 .38 .27 .24 852-4622 50X8A 8 50 E .48 .38 .27 .24 852-4625 50X20A 5 50 A .46 .37 .26 .23 852-4627 50X5A 5 50 A .46 .37 .26 .23 852-4628 50X5B 6 .50 E .48 .38 .27 .24 852-4627 50X5A 5 50 A .46 .37 .26 .23 852-4628 50X5A 5 50 A .46 .37 .26 .23 852-4629 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X6B 6 50 E .48 .38 .27 .24 852-4622 50X8A 8 50 E .48 .38 .27 .24 852-4623 50X10A 15 50 C .53 .42 .30 .27 852-4624 50X15A 15 50 C .53 .42 .30 .27 852-4625 50X20A 25 50 E .68 .55 .39 .34 852-4627 50X35A 35 .50 G .71 .57 .40 .35 852-4628 50X25A 25 50 E .68 .55 .39 .34 852-4629 50X75 75 50 J .86 .55 .39 .34 852-4629 50X75 75 50 J .86 .64 .46 .39 852-4630 50X100 100 50 K .80 .64 .46 .40 852-4631 50X15D 150 50 N .90 .72 .51 .45 852-4632 50X20A 25 50 E .68 .55 .39 .34 852-4628 50X50A 55 00 F .86 .55 .39 .34 852-4629 50X50A 55 00 D .86 .55 .39 .34 852-4628 50X50A 55 00 D .86 .55 .39 .34 852-4628 50X50A 55 00 D .86 .55 .39 .34 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 35 .50 G .71 .57 .40 .35 852-4638 50X35A 55 .50 G .71 .57 .40 .35 852-4638 50X35A 55 .50 G .71 .57 .40 .35 852-4648 10X300 300 .50 V .115 .92 .65 .57 852-4631 50X300 300 .50 V .115 .92 .65 .57 852-4631 50X			25X20A	20	25	A	.52			
852-4606 25X50A 50 25 E 6 71 57 40 36 852-4608 25X10DB 100 25 B 74 60 42 37 852-4610 25X200 200 25 K 80 64 46 40 852-4611 25X200 200 25 K 80 64 46 40 852-4611 25X300 300 25 M 90 72 51 45 852-4613 25X400 400 25 B 95 77 .55 48 852-4613 25X400 400 25 B 95 77 .55 48 852-4613 25X400 600 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 50X1 1 50 A .46 .37 .26 .23 852-4618 50X3 3 50 A .46 .37 .26 .23 852-4618 50X3 3 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X6B 6 50 E .48 .38 .27 .24 852-4622 50X8A 8 50 A .46 .37 .26 .23 852-4623 50X10B 10 50 A .46 .37 .26 .23 852-4624 50X6A 5 50 E .48 .38 .27 .24 852-4625 50X2A 2 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 E .48 .38 .27 .26 .23 852-4621 50X6B 6 50 E .48 .38 .27 .26 .23 852-4623 50X10B 10 50 A .46 .37 .26 .23 852-4623 50X10B 10 50 A .46 .37 .26 .23 852-4625 50X2A 25 .50 E .68 .55 .39 .34 852-4625 50X2A 25 .50 E .68 .55 .39 .34 852-4625 50X2A 25 .50 E .68 .55 .39 .34 852-4628 50X5DB 50 50 G .75 .60 .42 .37 852-4628 50X5DB 50 50 K .80 .64 .46 .39 852-4631 50X15DA 150 50 K .80 .64 .46 .39 852-4632 50X2D0 200 50 F .50 .60 .42 .37 852-4628 50X5DB 50 50 K .80 .64 .46 .39 852-4631 50X15DA 150 50 N .90 .72 .51 .45 852-4632 50X2A .55 .50 E .68 .55 .39 .34 852-4633 50X2DA .50 .50 A .10 .90 .72 .51 .45 852-4638 50X5DB 50 .50 K .80 .64 .46 .40 852-4631 50X15DA 150 .50 N .90 .72 .51 .45 852-4638 50X5DB 50 .50 A .46 .37 .26 .23 852-4638 50X5DB 50 .50 A .46 .37 .26 .23 852-4638 50X5DB 50 .50 A .46 .37 .26 .23 852-4638 50X5DB 50 .50 A .46 .37 .26 .23 852-4639 50X15DA .50 .50 A .40 .50 .40 .40 .35 852-4631 50X15DA .50 .50 .40 .40 .40 .30 .40 .40 .40 .30 .40 .40 .40 .40 .40 .40 .40 .40 .40 .4		852-4604	25X25B -	25	25.	Α .		.41		
852-4606		852-4605	25X35A	35	25	C	.52	.41	.29	.26
852-4607		852-4606			25	È	.68	.55	.39	.34
852-4608 25X100B 100 25 B .74 80 .42 .37 852-4610 25X200 200 25 K 80 .64 .46 .40 852-4611 25X200 200 25 K 80 .64 .46 .40 852-4612 25X400 400 25 M .90 .72 .51 .45 852-4613 25X500 500 25 DD 1.02 .82 .59 .50 852-4615 25X800 800 25 T 1.08 .87 .62 .54 852-4615 55X800 800 25 X 1.08 .87 .62 .54 852-4617 50X2 2 50 A .46 .37 .26 .23 852-4618 50X3 3 50 A .46 .37 .26 .23 852-4621 50X5A 5 50 A .46 </td <th></th> <td>852-4607</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>.57</td> <td>40</td> <td>.36</td>		852-4607						.57	40	.36
852-4619 25X200 200 25 K 80 .64 .46 .40 .852-4611 25X300 300 25 M .90 .72 .55 .48 .852-4611 25X300 300 25 M .90 .77 .55 .48 .852-4613 25X500 500 25 DD 1.02 .82 .59 .50 .852-4613 25X500 800 .25 T 1.08 .87 .62 .54 .852-4614 25X600 800 .25 T 1.08 .87 .62 .54 .852-4615 .50X10 .800 .25 T 1.08 .87 .62 .54 .852-4615 .50X10 .800 .25 T 1.08 .87 .62 .54 .852-4616 .50X1 1 .50 A .46 .37 .26 .23 .852-4618 .50X2 2 .50 A .46 .37 .26 .23 .852-4618 .50X3 3 .50 A .46 .37 .26 .23 .852-4619 .50X4 4 .50 A .46 .37 .26 .23 .852-4619 .50X4 A .45 .37 .26 .23 .852-4620 .50X5A 5 .50 A .46 .37 .26 .23 .852-4620 .50X5A 5 .50 A .46 .37 .26 .23 .852-4622 .50X5A 5 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X10B 10 .50 A .46 .37 .26 .23 .852-4623 .50X20B .20 .50 D .68 .55 .39 .34 .852-4624 .50X10A .50 .50 B .50 .50 .50 .50 .50 .50 .50 .50 .50 .50									42	37
862-4610 25X200 200 255 K 80 .64 .46 .40 852-4611 25X300 300 25 M .90 .72 .51 .45 852-4612 25X400 400 25 R .96 .77 .55 .48 852-4614 25X600 600 25 T 1.08 .87 .62 .54 852-4615 25X800 800 25 X 1.08 .87 .62 .54 852-4615 50X1 1 1.50 A .46 .37 .26 .23 852-4617 50X2 2 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4621 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X6A 6 50 A .46							78			39
852-4611 25X300 300 25 M 990 72 55 48 852-4613 25X400 400 25 R 95 77 55 48 852-4613 25X500 500 25 DD 1.02 82 59 50 852-4614 25X600 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 25X800 800 25 T 1.08 87 62 54 852-4615 50X1 1 50 A 46 37 26 23 852-4617 50X2 2 50 A 46 37 26 23 852-4618 50X3 3 50 A 46 37 26 23 852-4618 50X3 3 50 A 46 37 26 23 852-4618 50X4 4 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4620 50X5A 5 50 E 48 38 27 26 23 852-4620 50X5A 5 50 E 48 38 27 24 852-4622 50X8A 8 50 E 48 38 27 24 852-4625 50X20B 20 50 D 88 55 39 34 852-4625 50X20B 20 50 D 88 55 39 34 852-4626 50X25A 25 50 E 68 55 39 34 852-4627 50X35A 35 50 E 68 55 39 34 852-4628 50X50B 50 50 G .75 .60 42 37 852-4628 50X50B 50 50 G .75 .60 42 37 852-4628 50X50B 50 50 K 80 64 46 46 40 852-4631 50X150A 150 50 N .90 .72 51 45 852-4633 50X150A 150 50 N .90 .72 51 45 852-4633 50X25A 25 50 E 68 55 .39 .34 852-4628 50X50B 50 50 G .75 .60 .42 .37 852-4638 50X50B 50 50 K 80 .64 46 40 852-4631 50X150A 150 50 N .90 .72 51 45 852-4633 50X25A 25 50 E .88 .55 .39 .34 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4633 50X25A 25 .50 E .88 .55 .39 .34 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4633 50X25A 25 .50 E .88 .55 .57 852-4633 50X25A 25 .50 E .88 .55 .57 852-4633 50X25A 25 .50 E .88 .55 .57 852-4633 50X25A 25 .50 E .88 .55 .50 E .88 .55 .50 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4632 50X25A 25 .50 E .88 .55 .57 852-4633 50X25A 25 .50 E .88 .55 .57 852-4634 50X350 300 50 U 1.15 .92 .65 .57 852-4635 50X35A 35 .50 E .50 E .52 .41 .29 .26 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4648 150X1 1 150 A .55 .46 .37 .26 .23 852-4648 150X1 1 150 A .55 .46 .37 .26 .23 852-4651 150X3 3 1500 EE .68 .55 .39 .34 852-4651 150X3 3 1500 EE .68 .55 .39 .34 852-4655 150X20 20 150 L .80 .66 .46 .39							90			
852-4612 25X400 400 25 R .96 .77 .55 48 852-4614 25X600 500 25 T 1.08 .87 .62 .54 852-4614 25X600 800 25 T 1.08 .87 .62 .54 852-4615 25X800 800 25 X 1.08 .87 .62 .54 852-4616 50X1 1 50 A .46 .37 .26 .23 852-4617 50X2 2 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4619 50X5 A 5 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 A .46 .37 .26 .23 852-4622 50X8A 8 50 A .46 .37 .26 .23 852-4624 50X18A 15 50 A .46 .37 .26 .23 852-4624 50X18A 15 50 A .46 .37 .26 .23 852-4625 50X9B .0 50 A .46 .37 .26 .23 852-4627 50X5B .6 50 A .45 .37 .26 .23 852-4628 50X50B .0 50 A .45 .37 .26 .23 852-4628 50X50B .0 50 A .45 .37 .26 .23 852-4628 50X50B .0 50 A .46 .37 .26 .23 852-4628 50X50B .0 50 A .46 .37 .26 .23 852-4628 50X50B .0 50 B .68 .55 .39 .34 852-4628 50X50B .50 .50 B .68 .55 .39 .34 852-4629 50X75 .75 .50 D .68 .55 .39 .34 852-4629 50X75 .75 .50 D .78 .60 .42 .37 852-4629 50X75 .75 .50 D .77 .55 .60 .42 .37 852-4629 50X75 .75 .50 D .77 .55 .50 .42 .37 852-4629 50X75 .75 .50 D .77 .55 .50 .42 .37 852-4629 50X75 .75 .50 D .77 .55 .50 .42 .37 852-4630 50X10D .100 .50 K .80 .64 .46 .40 852-4631 50X150A .150 .50 K .90 .72 .51 .45 852-4632 50X200 .200 .50 R .1.02 .82 .58 852-4633 50X50B .50 .50 .50 K .80 .64 .46 .40 852-4634 50X300 .300 .50 U .1.15 .92 .65 .57 852-4638 100X2 .2 100 A .52 .41 .29 .26 852-4638 100X2 .2 100 A .52 .41 .29 .26 852-4638 100X2 .2 100 J .80 .64 .46 .40 852-4638 100X2 .2 100 A .52 .41 .29 .26 852-4648 100X50 .50 100 T .1.08 .87 .62 .54 852-4648 100X50 .50 100 T .1.08 .87 .62 .54 852-4650 150X3 .3 .150 .00 .1 .15 .92 .65 .57 852-4648 150X1 .1 150 A .46 .37 .26 .23 852-4651 150X5 A .5 150 E .68 .55 .39 .34 852-4651 150X5 A .5 150 E .68 .55 .39 .34 852-4651 150X5 A .5 150 E .68 .55 .39 .34 852-4651 150X5 A .5 150 E .68 .55 .39 .34 852-4651 150X5 A .5 150 E .68 .55 .39 .34 852-4655 150X50 .3 .30 .50 .00 .30 .30 .30 .30 .30 .30 .30 .30 .3							.00	72	70	
852-4613 25X500 500 25 DD 1.02 .82 .59 .50 852-4614 25X800 800 25 T 1.08 .87 .62 .54 852-4615 25X800 800 25 X 1.08 .87 .62 .54 852-4617 50X2 2 50 A .46 .37 .26 .23 852-4618 50X3 3 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4621 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X5A 5 50 A .46 .37 .26 .23 852-4622 50X8A 8 50 A .46 .37 .26 .23 852-4623 50X15A 15 50 C .53								- 14		
852-4614										
852-4615						DD 1				50
852-4616 50X1 1 50 A 46 37 26 23 852-4618 50X3 3 50 A 46 37 26 23 852-4618 50X3 3 50 A 46 37 26 23 852-4618 50X4 4 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4620 50X5A 5 50 A 46 37 26 23 852-4621 50X6B 6 50 E 48 38 27 24 852-4622 50X8A 8 50 E 48 38 27 24 852-4622 50X8A 8 50 E 48 38 27 24 852-4623 50X10B 10 50 A 46 37 26 23 852-4624 50X15A 15 50 C 53 42 30 27 852-4625 50X20B 20 50 D 58 55 39 34 852-4625 50X25A 25 50 E 68 55 39 34 852-4626 50X25A 25 50 E 68 55 39 34 852-4628 50X5B 50 50 G 71 57 40 35 852-4628 50X5DB 50 50 G 75 50 4 36 852-4629 50X75 75 50 J 78 52 44 39 852-4629 50X75 75 50 J 78 52 44 39 852-4630 50X100 100 50 K 80 64 46 40 852-4631 50X15DA 150 50 N 90 72 51 45 852-4632 50X200 200 50 R 1.02 82 55 50 852-4633 50X25DA 250 50 N 90 72 51 45 852-4634 50X300 300 50 U 1.15 92 65 57 852-4635 50X35 350 50 V 1.15 92 65 57 852-4635 50X35 35 50 0 E 52 44 39 852-4631 50X15DA 150 50 N 90 72 51 45 852-4632 50X200 200 50 R 1.02 82 55 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4637 50X450 450 50 V 1.15 92 65 57 852-4638 100X2 2 100 A 52 41 29 26 852-4644 100X10 10 100 G EE 52 41 29 26 852-4648 150X1 1 150 A 55 46 37 26 23 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 50 D G 52 41 29 26 852-4648 150X3 1 150 D G 52 41 29 26 852-4648 150X3 1 150 D G 52 41 29 26 852-4650 150X3 3 150 D G 52 41 29 26 852-4651 150X5 5 51 150 EE 68 55 39 34 852-4655 150X0 20 20 150 L 80 64 46 36 39 34				600	. 25	T		87	.62	.54
852-4617 50X2 2 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4619 50X4 4 50 A .46 .37 .26 .23 852-4620 50X5A 5 50 A .46 .37 .26 .23 852-4621 50X6B 6 50 E .48 .38 .27 .24 852-4622 50X8B 8 50 A .45 .37 .26 .23 852-4622 50X8B 10 50 A .45 .37 .26 .23 852-4623 50X10B 10 50 A .45 .37 .26 .23 852-4624 50X15A 15 50 C .53 .42 .30 .27 852-4625 50X20B .20 50 D .68 .55 .39 .34 852-4627 50X35A 35 .50 C .71 .57 .40 .35 852-4628 50X50B 50 .50 G .75 .50 .42 .37 852-4629 50X75 75 .50 J .78 .52 .44 .39 852-4629 50X75 75 .50 J .78 .52 .44 .39 852-4629 50X75 75 .50 J .78 .52 .44 .39 852-4629 50X15A 150 50 K .80 .64 .46 .40 852-4631 50X15DA 150 50 K .80 .64 .46 .40 852-4631 50X15DA 150 50 K .80 .64 .46 .40 852-4632 50X200 200 50 R 1.02 .82 .58 .50 852-4633 50X25DA 250 .50 .80 .90 .77 .51 .45 852-4634 50X300 300 50 U .15 .92 .65 .57 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 852-4648 100X50 50 100 T .10 .80 .64 .46 .40 .40 .40 .40 .40 .40 .40 .40 .40 .40			25X800	800		' X '				
852-4617 50X2 2 50 A .46 .37 .26 .23 .852-4619 50X4 4 50 A .46 .37 .26 .23 .852-4619 50X4 4 50 A .46 .37 .26 .23 .852-4620 50X5A 5 50 A .46 .37 .26 .23 .852-4621 50X6B 6 50 E .48 .38 .27 .24 .852-4622 50X6B 10 50 A .46 .37 .26 .23 .852-4624 50X15A 15 50 A .46 .37 .26 .23 .852-4624 50X15A 15 50 A .46 .37 .26 .23 .852-4624 50X15A 15 50 C .53 .42 .30 .27 .852-4624 50X15A 15 50 C .53 .42 .30 .27 .852-4624 50X15A 15 50 C .53 .42 .30 .27 .852-4624 50X15A 15 50 C .53 .42 .30 .27 .852-4624 50X25A 25 50 D .68 .55 .39 .34 .852-4626 50X25A 25 50 E .68 .55 .39 .34 .852-4628 50X50B .50 .50 G .71 .57 .40 .35 .852-4629 50X75 .75 .50 J .78 .52 .44 .39 .852-4629 50X75 .75 .50 J .78 .52 .44 .39 .852-4629 50X75 .75 .50 J .78 .52 .44 .39 .852-4629 50X75 .75 .50 J .78 .52 .44 .39 .852-4631 50X150A 150 .50 K .80 .64 .46 .40 .852-4631 50X150A 150 .50 K .80 .64 .46 .40 .852-4631 50X150A 150 .50 K .80 .64 .46 .40 .852-4631 50X150A 150 .50 K .80 .64 .46 .40 .852-4631 50X150A 150 .50 K .80 .54 .46 .40 .852-4631 50X150A 150 .50 K .80 .54 .46 .40 .852-4631 50X150A 150 .50 K .80 .54 .46 .40 .852-4631 50X150A 150 .50 K .80 .54 .46 .40 .852-4634 50X300 300 .50 U 1.15 .92 .65 .57 .55 .50 .50 .40 .20 .50 .50 .50 .50 .50 .50 .50 .50 .50 .5		852-4616	50X1	1	50	Α .	.46	37	.26	.23
852-4618 50X3 3 50 A .46 .37 .26 .23 .852-4620 50X5A 5 50 A .46 .37 .26 .23 .852-4620 50X5A 5 50 A .46 .37 .25 .23 .852-4622 50X6B 6 .50 E .48 .38 .27 .24 .30 .27 .25 .23 .852-4622 50X8A 8 .50 A .46 .37 .26 .23 .852-4622 50X8A 8 .50 A .46 .37 .26 .23 .852-4624 50X15A 15 .50 C .53 .42 .30 .27 .852-4625 50X25A .55 .50 E .68 .55 .39 .34 .852-4625 50X25A .25 .50 E .68 .55 .39 .34 .852-4625 50X25A .25 .50 E .68 .55 .39 .34 .852-4627 50X35A .35 .50 E .68 .55 .39 .34 .852-4627 50X35A .35 .50 E .68 .55 .39 .34 .852-4628 50X25A .25 .50 E .68 .55 .39 .34 .852-4627 50X35A .35 .50 E .75 .852-4629 50X75 .75 .50 J .78 .52 .44 .39 .852-4630 50X100 100 .50 K .80 .64 .46 .49 .852-4631 50X15D .50 .50 .87 .50 .50 .60 .42 .37 .852-4630 50X100 100 .50 K .80 .64 .46 .40 .852-4631 50X15D .50 .50 .80 .90 .72 .51 .45 .852-4632 50X200 .20 .50 .8 1.02 .82 .58 .50 .50 .852-4633 50X25D .20 .50 .80 .90 .72 .51 .45 .852-4634 50X300 .300 .50 U 1.15 .92 .65 .57 .55 .50 .852-4638 100X2 .2 100 A .52 .41 .29 .26 .852-4638 100X2 .2 100 A .52 .41 .29 .26 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4638 100X2 .2 100 E .71 .57 .40 .35 .852-4644 100X10 10 100 .00 E .71 .57 .40 .35 .852-4644 100X50 .50 100 T .10 .86 .40 .37 .26 .23 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .35 .40 .40 .40 .35 .40 .40 .40 .35 .40 .40 .40 .35 .40 .40 .40 .35 .40 .40 .40 .35 .40 .40 .40 .40 .40 .40 .40 .40 .40 .40		852-4617	50X2	2	50	A	.46	.37	.26	
852-4619 50X4 4 50 A 46 37 25 23 852-4621 50X6B 6 50 E 48 38 27 852-4621 50X6B 6 50 E 48 38 27 25 23 852-4623 50X6B 8 50 A 46 37 26 23 852-4623 50X6B 10 50 A 46 37 26 23 852-4623 50X10B 10 50 A 46 37 26 23 852-4623 50X10B 10 50 C 53 42 30 27 852-4625 50X20B 20 50 D 58 55 39 34 852-4625 50X20B 20 50 D 58 55 39 34 852-4625 50X25A 25 50 E 68 55 39 34 852-4626 50X25A 25 50 E 68 55 39 34 852-4628 50X55B 50 G 71 57 40 35 852-4628 50X55 75 50 J 78 52 462 30 50X10D 100 50 K 80 64 46 46 40 852-4628 50X55 75 50 J 78 52 44 39 852-4628 50X55 75 50 J 78 52 44 39 852-4628 50X55 75 50 J 78 52 44 39 852-4628 50X55 75 50 J 78 52 44 39 852-4628 50X55 75 50 J 78 52 46 46 46 40 852-4631 50X15D 100 50 K 80 64 46 46 40 852-4631 50X15D 100 50 K 80 64 46 46 40 852-4631 50X15D 30 50 U 1.15 92 65 57 852-4635 50X35D 350 50 U 1.15 92 65 57 852-4635 50X35D 350 50 U 1.15 92 65 57 852-4635 50X35D 350 50 U 1.15 92 65 57 852-4635 50X35D 350 50 U 1.15 92 65 57 852-4638 100X2 2 100 A 52 41 29 26 852-4638 100X2 2 100 A 52 41 29 26 852-4638 100X2 2 100 A 52 41 29 26 852-4638 100X2 2 100 A 52 41 29 26 852-4648 100X10 10 100 G J 71 108 87 62 54 82 464 100X10 10 100 G J 80 50 J 8		852-4618		3	50	Δ	46	37	26	23
852-4620 50X6B 6 50 E 48 38 27 24 38 52-4621 50X6B 6 50 E 48 38 27 24 38 52-4622 50X8A 8 50 E 48 38 27 24 32 38 52-4622 50X8A 8 50 A 46 37 26 23 852-4624 50X15A 15 50 C 53 42 30 27 852-4625 50X2DB 20 50 D 68 55 39 34 852-4625 50X2DB 20 50 D 68 55 39 34 852-4627 50X35A 35 50 E 68 55 39 34 852-4627 50X35A 35 50 E 68 55 39 34 852-4627 50X35A 35 50 G 71 57 40 35 852-4628 50X5DB 50 50 G 75 50										
852-4621 50X8A 8 50 E 48 38 27 24 32 38 52-4623 50X10B 10 50 A 46 37 26 23 852-4623 50X10B 10 50 A 46 37 26 23 852-4625 50X20B 20 50 D 88 55 39 34 852-4625 50X20B 20 50 D 88 55 39 34 852-4625 50X25A 25 50 E 68 55 39 34 852-4627 50X35A 35 50 E 68 55 39 34 852-4628 50X5B 50 50 G 71 57 40 35 852-4628 50X75 75 50 J 78 52 44 39 352-4629 50X75 75 50 J 78 52 44 39 352-4629 50X75 75 50 J 78 52 44 39 352-4629 50X75 75 50 J 78 52 44 39 352-4629 50X75 75 50 J 78 52 46 46 40 352-4631 50X150 100 50 K 80 64 46 40 352-4631 50X150 150 50 N 90 72 51 45 852-4632 50X200 200 50 R 1.02 82 58 50 50 852-4633 50X250 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4635 50X350 350 50 V 1.15 92 65 57 852-4637 50X450 450 50 Y 1.33 1.07 76 66 852-4631 100X2 2 100 A 52 41 29 26 852-4644 100X10 10 100 G 71 1.33 1.07 76 66 852-4631 100X2 2 100 A 52 41 29 26 852-4644 100X50 50 100 T 1.15 92 65 57 852-4644 100X50 50 100 T 1.15 92 65 57 852-4644 100X50 50 100 G 71 1.08 87 62 54 852-4647 100X50 50 100 T 1.08 87 62 54 852-4648 150X1 1 150 A 52 44 1 29 26 852-4648 150X1 1 150 A 52 44 1 29 26 852-4648 150X1 1 150 A 52 464 100X50 50 100 T 1.15 92 65 57 852-4648 150X1 1 150 A 52 464 37 26 50X 31 100X50 50 100 T 1.108 87 62 54 852-4641 100X50 50 100 T 1.108 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4641 100X50 50 100 T 1.08 87 62 54 852-4651 150X50 50 100 T 1.08 87 62 55 57 852-4651 150X50 50 100 T 1.08 87 62 55 57 852-4651 150X50 50 100 T 1.08 87 62 55 57 852-4655 150X50 50 100 T 1.08 87 62 55 55 57 852-4655 150X50 50 100 T 1.08 87 62 55 55 57 852-4655 150X50 50 100 T 1.08 87 62 55 55 57 852-4655 150X50 50 100 T 1.08 87 62 55 55 57 852-4655								37		
852-4622 50X8A 8 50 A 46 .37 .26 .23 852-4624 50X15A 15 50 C .53 .42 .30 .27 852-4625 50X25A 25 50 D .88 .55 .39 .34 852-4627 50X35A 35 .50 G .71 .57 .40 .35 852-4627 50X35A 35 .50 G .71 .57 .40 .35 852-4629 50X75 75 50 J .78 .52 .44 .39 852-4629 50X75 75 50 J .78 .52 .44 .39 852-4629 50X75 75 50 K .80 .64 .46 .40 852-4631 50X15DA 15D 50 K .80 .64 .46 .40 852-4631 50X15DA 15D 50 K .80 .54 .45 .55 .50 852-4632 50X200 200 50 R 1.02 .82 .58 .50 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 C .71 .57 .40 .35 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X00 20 150 L .80 .64 .46 .39								38	27	24
852-4623 50X10B 10 50 A .46 .37 .26 .23 852-4624 50X10B 15 50 C .53 .42 .30 .27 852-4625 50X20B 20 50 D .68 .55 .39 .34 852-4627 50X35A 25 50 E .68 .55 .39 .34 852-4628 50X50B 50 G .71 .57 .40 .35 852-4628 50X50B 50 G .75 .60 .42 .37 852-4628 50X50B 75 50 J .78 .62 .44 .39 852-4630 50X100 100 50 K .80 .64 .46 .40 852-4631 50X250A 250 50 N .90 .72 .51 .45 852-4633 50X250A 250 50 AA 1.09 .87 <				. , 0				37		
852-4624 50X15A 15 50 C 53 42 30 .27 852-4628 50X20B 20 50 D .68 .55 .39 .34 852-4628 50X25A 25 50 E .68 .55 .39 .34 852-4628 50X25A 35 .50 .6 .71 .57 .40 .35 852-4628 50X50B 50 50 .75 .50 .42 .37 852-4629 50X75 75 50 J .78 .62 .44 .39 852-4630 50X150 100 50 K .80 .64 .46 .40 852-4631 50X150A 150 50 K .80 .64 .46 .40 852-4631 50X150A 150 50 K .90 .72 .51 .45 852-4632 50X200 200 50 R 1.02 .82 .58 .50 852-4633 50X250A 250 50 AA 1.09 .87 .62 .54 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.15 .92 .65 .57 852-4636 50X350 350 50 V 1.15 .92 .65 .57 852-4637 50X450 450 50 V 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4644 100X10 10 100 E .71 .57 .40 .35 852-4644 100X50 50 100 T 1.08 .87 .62 .54 852-4646 100X50 50 100 T 1.08 .87 .62 .54 852-4647 100X50 50 100 T 1.08 .87 .62 .54 852-4648 150X1 1 150 A .52 .41 .29 .26 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X00 10 150 H .74 .60 .42 .37										
862-4625 50X25A 25 50 D						. A	.46		.25	.23
852-4626 50X25A 25 50 E 68 55 39 34 852-4628 50X5DB 50 50 G 71 57 40 35 862-4628 50X5DB 50 50 G 75 60 42 37 852-4629 50X75 75 50 J 78 52 44 39 852-4630 50X100 100 50 K 80 64 46 40 852-4631 50X15DA 150 50 N 90 72 51 45 852-4631 50X15DA 150 50 N 90 72 51 45 852-4631 50X15DA 150 50 N 90 72 51 45 852-4631 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4635 50X35D 350 50 V 1.15 92 65 57 852-4638 100X2 2 100 A 52 41 29 26 852-4631 100X2 2 100 A 52 41 29 26 852-4631 100X2 2 100 A 52 41 29 26 852-4631 100X2 2 100 D 3 87 62 54 41 29 26 852-4644 100X25A 5 100 EE 52 41 29 26 852-4644 100X25A 5 100 J 80 64 46 40 852-4647 100X55 65 100 U 1.15 92 65 57 852-4646 100X5D 50 100 T 1.08 87 62 54 852-4647 100X5S 65 100 U 1.15 92 65 57 852-4648 150X1 1 150 A 652-4648 150X3 3 150 D 552 41 29 26 852-4648 150X3 3 150 D 552 41 29 26 852-4648 150X3 3 150 D 52 465 150X3 3 3 150 D 52 465 150X3 3 3 150 D 52 465 150X3 3 150X0 D 150 D 50 D 50 D 50 D 50 D 50 D 50 D						G-				.27
852-4627 50X35A 35 50 G .71 57 .40 .35 852-4628 50X50B 50 50 G .75 .60 .42 .37 852-4629 50X75 75 50 J .78 .62 .44 .39 852-4630 50X150A 150 50 K .80 .64 .46 .40 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4632 50X200 200 50 R 1.02 .82 .58 .50 852-4633 50X250A 250 50 AA 1.09 .87 .62 .54 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4634 50X300 350 50 V 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.15 .92 .65 .57 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4644 100X50 50 100 T 1.08 .87 .62 .54 852-4647 100X55 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .56 .50 .64 .46 .40 852-4647 100X55 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .54 852-4647 100X55 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 L .80 .64 .46 .39									.39	
852-4628 50X50B 50 50 G .75 .60 .42 .37 852-4630 50X100 100 50 K .80 .64 .46 .40 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4632 50X250A 250 50 AA 1.02 .82 .58 .50 852-4633 50X250A 250 50 AA 1.09 .87 .62 .54 852-4633 50X350 350 50 V 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.15 .92 .65 .57 852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4644 100X10 10 100 G		852-4626	50X25A							
852-4629 50X75 75 50 J .78 .62 .44 .39 852-4631 50X100 100 50 K .80 .64 .46 .40 852-4631 50X150A 150 50 N .90 .72 .51 .45 852-4632 50X250A 250 50 AA 1.09 .87 .62 .54 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 00 E .71 .57 .40 .35 852-4644 100X50 50 100 J .80 .64 .46 .40 852-4641 100X50 50 100 J		852-4627	50X35A	35	-50	G.	.71	.57		.35
852-4629 50X750 75 50 J 78 62 44 39 852-4631 50X100 100 50 K 80 64 46 49 852-4631 50X150A 150 50 N 90 72 51 45 852-4632 50X200 200 50 R 1.02 82 58 50 85 62 852-4633 50X250A 250 50 AA 1.09 87 62 54 55 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4634 50X350 350 50 V 1.15 .92 .65 .57 852-4637 50X450 450 50 V 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4631 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X50 50 100 J .80 .64 .46 .40 .852-4646 100X50 50 100 J .80 .64 .46 .40 .852-4647 100X50 50 100 J .80 .64 .46 .40 .852-4648 150X1 1 150 A .46 .37 .26 .23 .54 .54 .552-4651 150X50 5 150 EE .68 .55 .39 .34 .552-4651 150X50 5 150 EE .68 .55 .39 .34 .552-4651 150X50 5 150 EE .68 .55 .39 .34 .552-4651 150X50 20 150 L .80 .64 .46 .39 .37 .26 .33		852-4628	50X50B	50	50	G	.75	.60	-42	.37
852-4630 50X100 100 50 K 90 .64 .46 .40 852-4631 50X150A 150 50 N 90 .72 .51 .45 852-4632 50X200 200 50 R 1.02 .82 .58 .50 852-4633 50X250A 250 50 AA 1.09 .87 .62 .54 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.15 .92 .65 .57 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4638 100X2 2 100 EE .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4646 100X50 50 100 T 1.08 .87 .62 .54 852-4647 100X55 .65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .54 852-4647 100X55 .65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 L .80 .64 .46 .39		852-4629					.78		44	.39
852-4631 50X150A 150 50 N 90 .72 .51 .45 852-4633 50X250A 250 50 R 1.02 .82 .58 .50 852-4634 50X300 300 50 U 1.15 .92 .65 .57 852-4635 50X350 350 50 V 1.15 .92 .65 .57 852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4631 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4641 100X50 50 100 J .80 .64 .46 .40 852-4644 100X55 50 100 J .80 .64 .46 .40 852-4647 100X65 65 100 U 1.15 .92 .65 .57 852-4646 100X50 50 .70 J .80 .64 .46 .40 852-4648 150X1 1 .50 A .46 .37 .26 .23 852-4650 150X3 3 .150 D .52 .41 .29 .26 .852-4648 150X1 1 .150 A .46 .37 .26 .23 .852-4651 150X3 3 .150 D .52 .41 .29 .26 .852-4651 150X3 3 .150 D .52 .41 .29 .26 .852-4651 150X3 5 .51 .50 EE .68 .55 .39 .34 .852-4651 150X5A 5 .150 EE .68 .55 .39 .34 .852-4651 150X5A 5 .150 EE .68 .55 .39 .34 .852-4655 .150X0 20 .150 L .80 .64 .46 .39		852-4630		100	50	K	:80 ~	.64	46	.40
852-4632 50x200 200 50 R 1.02 .82 .58 .50 852-4633 50x250A 250 50 AA 1.09 .87 .62 .54 852-4634 50x300 300 50 U 1.15 .92 .65 .57 852-4635 50x350 350 50 V 1.33 1.07 .76 .66 852-4637 50x450 450 50 V 1.33 1.07 .76 .66 852-4638 100x2 2 100 A .52 .41 .29 .26 852-4641 100x10 10 100 E .52 .41 .29 .26 852-4644 100x10 10 100 G .71 .57 .40 .35 852-4644 100x25A 25 100 J .80 .64 .46 .40 852-4647 100x85 65 100 J								72		
852-4633 50X250A 250 50 AA 1.09 87 .62 .54 852-4634 50X350 300 50 U 1.15 .32 .65 .57 852-4635 50X350 350 50 V 1.15 .32 .65 .57 852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4639 100X5A 5 100 EE .52 .41 .29 .26 852-4639 100X5A 5 100 EE .52 .41 .29 .26 852-4644 100X10 10 100 G .71 .57 .40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4646 100X5D 50 100 T 1.08 .87 .62 .54 852-4647 100X55 .65 100 U 1.15 .92 .55 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .65 .39 .34 852-4655 150X20 20 150 L .80 .64 .45 .39										
852-4634 50X300 300 50 U 1.15 92 .65 .57 852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 29 .26 852-4638 100X2 5 100 EE .52 .41 29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4641 100X50 50 100 J .80 .64 .46 .40 852-4644 100X50 50 100 J .80 .64 .46 .40 852-4647 100X50 50 100 U 1.15 .92 .65 .57 852-4647 100X50 50 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 L .80 .64 .46 .39										
652-4635 50X350 350 50 Y 1.15 .92 .65 .57 852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4644 100X55 55 100 J .80 .64 .46 .40 852-4647 100X85 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE <						AA	4 45	22	.07	
852-4637 50X450 450 50 Y 1.33 1.07 .76 .66 852-4638 100X2 2 100 A .52 .41 .29 .26 852-4639 100X5A 5 100 EE .52 .41 .29 .26 852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4646 100X50 50 100 T 1.08 .87 .62 .54 852-4647 100X65 85 100 U 1.15 .92 .65 .57 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X10 10 150 H							4 45	.32	.03	.3/
852-4638 100X2 2 100 A .52 .41 .29 .26 852-4641 100X10 10 100 E .52 .41 .29 .26 852-4644 100X10 10 100 E .71 .57 .40 .35 852-4644 100X50 25 100 J .80 .64 .48 .40 852-4647 100X55 65 100 U 1.15 .92 .65 .54 852-4647 150X3 3 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4651 150X20 20 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .									00	
852-4639 100X5A 5 100 EE 52 41 29 26 852-4641 100X10 10 100 G .71 .57 40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4648 100X5D 50 100 T 1.08 .87 .62 .54 852-4648 100X5D 50 100 T 1.08 .87 .62 .54 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .65 .39 .34 852-4655 150X20 20 150 L .80 .64 .46 .39							1.33		/6	
852-4641 100X10 10 100 G .71 .57 .40 .35 852-4644 100X25A 25 100 J .80 .64 .46 .40 852-4646 100X5D 50 100 T 1.08 .87 .62 .54 852-4647 100X65 65 100 U 1.15 .92 .65 .57 852-4647 150X3 3 150 D .52 .41 .29 .26 852-4651 150X3 3 150 D .52 .41 .29 .26 852-4653 150X10 10 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39										
652-4644 100X25A 25 100 J .80 .64 .46 .40 852-4648 100X55 50 100 T 1.08 .87 .62 .54 852-4647 100X85 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39										
852-4648 100X50 50 100 T 1.08 .87 .62 .54 852-4647 100X65 65 100 U 1.15 .92 .65 .57 852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4653 150X10 10 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39						G .)	71		.40	
852-4647 100X65 65 100 U 1.15 .92 .65 .57 852-4651 150X3 3 150 A .46 .37 .26 .23 852-4651 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4653 150X10 10 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39						J	.80		.46	
852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 H .74 .50 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39		852-4646	100X50	50	100	T 1	1.08	.87	.62	.54
852-4648 150X1 1 150 A .46 .37 .26 .23 852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4655 150X20 20 150 H .74 .50 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39		852-4647	100X65	85	100	.83	1.15	.92	.65	.57
852-4650 150X3 3 150 D .52 .41 .29 .26 852-4651 150X5A 5 150 EE .68 .55 .39 .34 852-4653 150X10 10 150 H .74 .50 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39				1				.37	.26	.23
852-4651 150X5A 5 150 EE 68 .55 .39 .34 .852-4653 150X10 10 150 H .74 .60 .42 .37 .852-4655 150X20 20 150 L .80 .64 .46 .39				3					29	26
852-4653 150X10 10 150 H .74 .60 .42 .37 852-4655 150X20 20 150 L .80 .64 .46 .39									39	34
852-4655 150X20 20 150 L 80 64 46						H			42	37
						12				
852-4659 150X40 40 150 U 1.09 .87 .55 .48						L .				.39
892-4699 150040 40 150 0 1.09 .87 .82 .54						н ,	.96	1 .//	.55	. 48
		852-4659	150X40	40	150	U	1.09	.87	.62	. 54

NOTE ...

WE STOCK HIGHER VOLTAGES WHEN CASE SIZE IS THE SAME AND PRICE IS THE SAME.
FOR EXAMPLE:

1 MICROFARAD IS AVAILABLE IN THE FOLLOWING WORKING

VOLTAGES, ALL IN THE SAME CASE SIZE AND AT THE SAME PRICE: 3, 10, 15, 25 AND 50. WE STOCK THE 50 WVDC UNIT—YOU GET THE ADVANTAGE OF THE HIGHER WORKING VOLTAGE AT NO ADDITIONAL COST.

Aluminum Electrolytic Capacitors

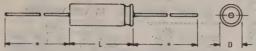
TYPE WBR AND TYPE BR "BLUE BEAVER" ELECTROLYTIC CAPACITORS

Types WBR and BR are compact aluminum cased, insu-Types WBR and BR are compact aluminum cased, insulated DC electrolytic capacitors. The case is spun over a rubber-bakelite plug to provide an effective hermetic seal. These capacitors, designed to give the greatest volumetric efficiency, offer the maximum capacitance in the smallest possible case size. Both types feature an etched cathode and an all-welded construction for excellent reliability. Operating temperatures range: -40°C to +85°C up to 450 volts and to +65°C for higher voltages. Type BR has cardboard sleeve. Type WBR has a plastic sleeve, except 600 V and 700 V, which have cardboard sleeves. Cap. Tolerances: 3 to 50 WVDC—10%+150%; 51 to 350 WVDC—10%+100%, and 351 to 700 WVDC—10%+50%.

HOW TO ORDER

Specify Stock Number and Capacitance. Unless otherwise specified, a WBR will be supplied where both a WBR and a BR are available.

For overall BR size, add .062" to diameter and .187" to length. 600 V and 700 V sizes are overall including card-board tube. For overall WBR size, add .010" to diameter and to length.



NOTE: 8 AND 1 = IININSHI ATED DIMENSIONS

.50'' .625'' and Larger

*LEAD SIZE No. 20 AWG. (0.032" DIA.) 1.50_0.5 INCHES No. 20 AWG. (0.032" DIA.) 3.50_0.5 INCHES No. 18 AWG. (0.040" DIA.) 3.50_0.5 INCHES



_	6 VDC RATED—8 VDC SURGE													
Stock		Туре	Туре	Size Inches		EA								
No.	μF	WBR	BR	DxL	1-9	10-24	25-49	50-Up						
755-0540	1000	1000-6	1000-16	.625x1.437	2.13	1.70	1.42	1.21						
		16 V	C RATED-	-20 VDC SU	RGE									
755-0483	100		100-16	.50x1.062	1.09	.87	.62	.54						
755-0483 755-0511	100 250	100-16 250-16	250-16	.312x.75 .375x1.0	1.09	.87 1.15	.62 .82	.54 .71						
755-0531	500	500-16	500-16	.50x1.437	1.68	1.34	.95	.83						
755-0541	1000	1000-16	1000-16	.625x1.687	2.18	1.74	1.23	1.08						
755-0553 755-0561	2000 3000	2000-16 3000-16	2000-16 3000-16	.75x2.0	2.53 4.05	2.03 3.24	1.44	1.25 2.01						
733-0301	3000					3.24	2.30	2.01						
25 VDC RATED—30 VDC SURGE 755-0214														
755-0228	25	25-25		.312x.625	.97	.78	.55	.48						
755-0445	50	50-25		.312x.75	1.24	.98	.71	.62						
755-0484 755-0512	100 250	100-25 250-25	100-25 250-25	.375x.75 .50x1.437	1.24	.98	.71 .64	.62						
755-0532	500	500-25	500-25	.625x1.437	2.14	1.71	1.21	1.06						
755-0542	1000	1000-25	1000-25	.75x1.687	3.55	2.84	2.01	1.76						
755-0554	2000	2000-25	2000-25	.75x2.50	4.36	3.99	2.48	2.16						
		50 VI	C RATED	-65 VDC SL	RGE									
755-0216	10	10-50	10-50	.375x.625	.90	.72	.51	.45						
755-0425 755-0456	25 50	25-50	25-50 50-50	.375x.625 .50x1.062	.98 1.13	.78	.55 .64	.48						
755-0456	50	50-50	20-20	.375x.875	1.13	.90	.64	.56						
755-0485	100	100-50	100-50	.50x1.437	1.21	.97	.68	.60						
755-0495	150	150-50	150-50	.625x1.062	1.36	1.09	.77	.67						
755-0513 755-0533	250 500	250-50 500-50	250-50 500-50	.625x1.437	1.68	1.34	.95 1.26	.83 1.10						
755-0543	1000	1000-50	1000-50	.875x2.0	3.74	2.99	2.12	1.85						
755-0550	1500	1500-50	1500-50	1.0x2.187	4.60	3.68	2.61	2.28						
755-0555	2000	2000-50	2000-50	1.0x2.687	5.17	4.14	2.93	2.56						
			C RATED	-175 VDC S										
755-0205	4	4-150	4 150	.312x.75	.90	.72	.51	.45						
755-0205 755-0370	4 8	8-150	4-150 8-150	.375x1.0 .375x.75	.90	.72 .78	.51 .55	.45						
755-0380	10	10-150	10-150	.375x.875	.98	.78	.55	.48						
755-0389	16		16-150	.375x1.0	1.02	.82	.58	.51						
755-0415	20	20-150	20-150	.375x1.25	1.09	.86	.62	.54						
755-0435 755-0445	30 40	30-150 40-150	30-150 40-150	.375x1.50 .625x1.437	1.17	.92	.66 .71	.58						
755-0445	40	40-130	70-130	.020X1.407	1.24	.30	./1	.02						

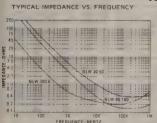
Stock		Туре	Type	Size Inches		EA		
No.	μF	WBR	BR	DxL	1-9	10-24	25-49	50-Up
755-0458	50	50-150	50-150	.625x1.437	1.29	1.02	.73	.64
755-0467	60	60-150	60-150	.625x1.437	1.32	1.06	.75	.66
755-0475	80	80-150	80-150	.75x1.437	1.32	1.06	.72	.66
755-0486 755-0496	100 150	100-150 150-150	100-150 150-150	.75x1.687 .875x1.687	1.56	1.24	.88	.77
755-0503	200	200-150	200-150	.875x2.0	2.41	1.93	1.37	1.19
755-0518	300	300-150	300-150	1.0x2.187	2.80	2.24	1.59	1.39
		250 VD	C RATED-	-300 VDC S	URGE			
755-0360	4	4-250	4-250	.50x1.062	1.01	.81	.58	.51
755-0371	8	8-250	8-250	.50x1.437	1.60	1.28	.88	.77
755-0390	12	12-250	12-250	.50x1.437	1.60	1.28	.88	.77
755-0406 755-0416	16 20	16-250 20-250	16-250 20-250	.625x1.062 .75x1.062	1.75	1.40 1.42	.99 1.01	.87
755-0416	30	30-250	30-250	.75x1.437	1.87	1.42	1.06	.93
755-0446	40	40-250	40-250	.625x1.687	1.95	1.56	1.10	.98
755-0459	50	50-250	50-250	.75x1.687	2.02	1.62	1.15	1.00
755-0468	60	60-250	60-250	.75x2.0	2.14	1.70	1.21	1.06
755-0487	100	100-250	100-250	.875x2.0	2.38	1.90	1.35	1.18
		350 VD	C RATED-		URGE			
755-0372	8	8-350	8-350	.625x1.062	1.60	1.28	.88	.77
755-0417	20 .	20-350	20-350	.75x1.437	1.88	1.50	1.07	.93
755-0469 755-0488	60 ·	60-350 100-350	100-350	.75x2.50 1.0x2.0	2.26	1.80 2.18	1.28	1.12
733-0400	100	450 VD		-525 VDC S		2.10	1.54	1.55
755-0305	1	1-450	1-450	.625x1.062	4.15	3.32	2.36	2.06
755-0355	2:	2-450	2-450	.625x1.062	1.63	1.30	.93	.81
755-0362	4	4-450	4-450	.625x1.062	1.67	1.34	.95	.83
755-0373	8 -	8-450	8-450	.75x1.062	1.83	1.46	1.04	.91
755-0383	10	10-450	10-450	.75x1.062	1.83	1.46	1.04	.91
755-0408	16	16-450	16-450	.75x1.062	1.91	1.52	1.08	.94
755-0418	20	20-450	20-450	.75x1.687	1.95	1.56	1.10	.97
755-0438 755-0448	30 40	30-450	30-450 40-450	.875x1.687 .875x2.0	2.10 2.26	1.68 1.80	1.19	1.04
755-0448 755-0470	60 60	40-450 60-450	60-450	1.0x2.187	2.49	1.99	1.41	1.23
755-0478	80	80-450	80-450	1.0x2.687	2.84	2.27	1.61	1.41
755-0489	100	100-450	100-450	1.0x3.562	3.27	2.62	1.86	1.62
		500 VD		-550 VDC S				
755-0374	8	8-500	8-500	.75x1.062	1.83	1.46	1.84	.91
-		700	VDC RATI	ED-750 SUR	GE			
755-0411	16	16-700		.937x4.312	3.90	3.12	2.22	1.94

"ELECTROMITE" SUBMINIATURE ELECTROLYTIC CAPACITORS

Voltage Range

3 to 16 VDC Over 16 VDC

Operation as



12 WVDC EACH 25- 50- 100-

No.			24	49	99	Up
55-3075	25	Α	.77	.61	.44	.38
55-3135	100	F	1.02	.81	.58	.50
755-3190	250	K	1.10	.88	.62	.54
755-3221	500	N	1.27	1.01	.72	. 62
		16 V	NVDC			
755-3050	10	Α	.56	.44	.31	.28
55-3116	50	C	.63	.50	.35	.31
55-3175	200	K	.90	.71	.50	.44
755-3191	250		.74	.59	.42	.36
755-3215	450	N	1.41	1.13	.80	.70
		25 V	VVDC			
755-3002	1	A	.56	.44	.31	.27
55-3008	2 5	A	.69	. 55	.39	.34
755-3026		A	.46	.37	.26	.23
755-3051	10	A	.42	.34	.24	.21
755-3059	15	В	.56	.44	.32	.28
755-3077	25	В	63	50	35	31



200,000 feet. MIL-STD-202 WVDC (CONT'D) EACH 25-49 50-99 24 Up .56 .52 .69

50 WVDC										
755-3004 755-3010 755-3021 755-3023 755-3127 755-3052	1 2 4 5 5	A A A A B	.69 .69 .42 .77 .68	.55 .55 .34 .62 .54	.39 .39 .24 .44 .38	.34 .34 .21 .39 .33				
755-3060	15	CCFJ	.78	.62	.44	.39				
755-3069	20		56	.44	.32	.27				
755-3078	25		.57	.45	.32	.27				
755-3097	35		1.02	.81	.58	.50				
755-3118	50	KLM	.54	.42	.30	.26				
755-3128	75		1.27	.98	.69	.60				
755-3138	100		.71	.56	.40	.35				

d Storage: May be operated or stored up to Meet or exceed barometric pressure test of D, Method 105C.
100 WVDC
EACH

Temperature -20°C

—30°C

SPECIFICATIONS Capacitance Change with Temperature
Max. capacitance changes from measured ±25°C value:

Surge Voltage Test: Withstand 1000 cycles of surge at

Stock 50-99 25-49 755-3070 755-3109

755-3006 755-3029	1 5	F	.52 .79	.63	.29	.39
01	75		DE II	ine	v .	

Code*	Size Inches	Code*	Size Inches
A	1/4×1/2	K	3/8 X 7/8
C B	1/4 X 5/8 5/16 X 5/8	M	%x1 %x1 %
F	5/16X3/4	N	3/8 x 1 ½



LEADS: #20 AWE

- Ideal for Printed Circuit **Board Applications**
- Aluminum Foil Construction Hermetically Sealed in Aluminum **Cans with Transparent Plastic Sleeves**

"Electromite" electrolytic capacitors designed for use with a variety of transistorized equipment—mount easily on printed circuit boards. High-gain, high-purity etched foil design provides stable capacitance characteristics vs. temperature. All connections are securely welded for optimum dependability. Surge voltages exceed working voltages by 20%. Temperature range, —40°C to 105°C. Telerance,—10% to +75%. Grounded negative lead. In tables at left refer to Size Code Index at left. 2 oz.

Aluminum Electrolytic Capacitors

TYPE 500D MINIATURE METAL-CASE ALUMINUM ELECTROLYTIC CAPACITORS



Good operating life characteristics. Excellent low temperature operation. Reliability at low cost. Long shelf life. Excellent stability of capacitance, equivalent series resistance, and leakage current. High capacitance in an ultra-small size. Furnished with plastic outer insulating sleeves. Oper. temp. range: -20° to +85°C. Tol.: 3 to 9 WVDC, -10%, +75%; 100 to 450 WVDC, -10%, +50%. For units with a plastic-film insulation, substitute "7" for "0" as the last digit in the manufacturers type number.

TABLE OF DIMENSIONS

		Overall Size						
Case Code	BAR	E Can 😘 .	Outer Film	Insulation*				
Loge	Dia.	Length	Dia. ±0.016	Lgth. ±0.031				
BA	0.250	0.500	0.260	0.536				
BB	0.250	0.687	0.260	0.723				
CB	0.312	0.687	0.322	0.723				
CC	0.312	0.812	0.322	0.848				
DC	0.375	0.812	0.385	0.848				
DD	0.375	0.937	0.385	0.973				
DF	0.375	1.250	0.385	1.286				
DH	0.375	1.500	0.385	1.536				
EF	0.438	1.250	0.448	1.286				
EH	0.438	1.500	0.448	1.536				
FK	0.485	1.750	0.500	1.797				

* Shrink-fitted insulation will lap over the ends of the capacitor body.

12 VDC WORKING, 15 VDC SURGE

	Mfr's				EACH			
Stock	Type	μF	Case	1-	25-	50-	100-	
No.	500D		Code	24	49	99	Up	
926-3005	256G012BB0	25	BB .	.73	.59	.41	.36	
926-3010	107G012CC0	100	CC	.78	.62	.44	.39	
926-3020	257G012DF0	250	DF	.85	.68	.49	.43	
926-3030	507G012EH0	500	EH	1.08	.86	.61	.54	

16 VDC WORKING, 20 VDC SURGE

926-3105	106G016BA0	10	BA	.70	.56	.40	.35
		FO	CD	75	60	42	27.
926-3120	207G016DF0	200	DF	.87	.70	.50	.43
				27	70	50	43
926-3130	45/G016EH0	450	EH.	1.08	.86	*PT	.54
926-3120 926-3125	506G016CB0 207G016DF0 257G016DF0 457G016EH0	250	DF DF	.75 .87 .87 1.08	.70 .70	.43 .50 .50 .61	.43

25 VDC WORKING, 35 VDC SURGE

1 .	Mfr's			EACH			
Stock	Туре	μF	Case	1-	25-	50-	100-
No.	500D		Code	24	49	99	Up
926-3200	105G025BA0		BA	.70	.56	.40	.35
926-3205	205G025BA0	2	BA	.70	.56	.40	.35
926-3210	505G025BA0	5	BA	.70	.56	.40	.35
926-3215	106G025BB0	10	BB	.73	.59	.41	.36
926-3220	156G025BB0	15	BB	.73	.59	.41	.36
926-3325	256G025CB0	25	CB	.75	.60	.43	.37
926-3230	506G025CC0	50	CC	.79	.63	.45	.39
926-3235	756G025DC0	75	DC	.79	.64	.45	.40
926-3240	107G025DD0	100	DD	.81	.65	.46	.40
926-3245	157G025DF0	150	DF	.87	.70	.50	.43
926-3250	257G025EF0	250	EF	.70	.56	.40	.35

50 VDC WORKING, 65 VDC SURGE

-11.71 1 -	Mfr's				EAC	H	
Stock No.	Туре	μF	Case Code	1- 24	25- 49	50- 99	100- Up
926-3310	205G050BA0	2	BA	.70	.56	.40	.35
926-3315	405G050BA0	4	BA	.70	.56	.40	.35
926-3320	505G050BB0	5	BB	.73	.59	.41	.36
926-3325	605G050BB0	6	BB	.73	.59	.41	.36
926-3330	106G050CB0	10	CB	.75	.60	.43	.37
926-3335	156G050CB0	15	CB	.75	.60	.43	.37
926-3340	206G050CC0	20	CC	.79	.63	.45	.39
926-3345	256G050CC0	25	CC	.79	.63	.45	.39
926-3350	356G050DC0	35	DC	.79	.64	.45	.40
923-3355	506G050DD0	50	DD	.81	.65	.46	.40
926-3360	756G050DF0	75	DF	.87	.70	.50	.43
926-3365	107G050DH0	100	DH	.90	.72	.51	.45

100 VDC WORKING, 125 VDC SURGE

	206F100DF0					.50	
926-3450	406F100EH0	40	EH .	1.08	.80	.01	.34

150 VDC WORKING, 175 VDC SURGE

926-3500 926-3510	105F150BA0 505F150CC0	5	BA	.70 .79	.56	.40 .45	.35
----------------------	--------------------------	---	----	------------	-----	------------	-----

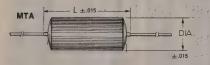
250 VDC WORKING, 300 VDC SURGE

926-3600	105F250CB0 505F250DF0 106F250EF0	1	CB	.75	.60	.43	.37
926-3610	505F250DF0	5	DF	.87	.70	.50	.43
926-3620	106F250EF0	10	EF	1.02	.82	.58	.51

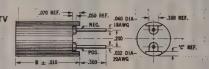
400 VDC WORKING, 450 VDC SURGE

105F400DC0 505F400EH0	DC EH	.79 1.08	.45 .61	.40
106F400FK0	FK	2100	 .87	

TYPE MTA AND MTV MOLDED ALUMINUM ELECTROLYTIC CAPACITORS







All welded construction; plastic insulated case. Feature moisture-tight seal. Type MTV has positive and uniform centering and spacing of leads. Operating temperature range: MTA, -30°C to $+85^{\circ}\text{C}$; MTV, -30°C to $+65^{\circ}\text{C}$ continuous, 85°C intermittent. Tolerance: -10°M , $+100^{\circ}\text{M}$.

TYPE MTV

	Mfr's					EA	СН	
Stock No.	Type MTA-	μF	WV DC	Size, In. Dia.xL	1- 24	25- 49	50- 99	100- Up
852-2540 852-2584 852-2571 852-2529 852-2532	50D6 500F6 200E10 30D15 35D15	50 500 200 30 35	6 10 15 15	5/16 X 3/4 1/2 X 1 3/8 3/16 X 1 5/16 X 3/4 5/16 X 3/4	.44 .61 .53 .48 .44	.36 .48 .44 .38	.30 .41 .38 .33 .30	.25 .36 .32 .27 .25
852-2541 852-2558 852-6612 852-2575 852-2578	50E15 100E15 250F15 300F15 350F15	50 100 250 300 360	15 15 15 15 15	3/8 x 1 3/8 x 1 1/2 x 1 3/8 1/2 x 1 3/8 1/2 x 1 3/8	.48 .48 .61 .69	.38 .38 .48 .54	.33 .33 .41 .46 .46	.27 .27 .36 .40 .40
852-6613 852-2525 852-6614 852-2542 852-2569	2000G15 25D20 250F20 50E25 175F25	2000 25 250 50 175	15 20 20 25 25	3/8 x 1 7/8 5/16 x 3/4 1/2 x 1 3/8 3/8 x 1 1/2 x 1 3/8	.98 .44 .67 .48 .66	.76 .36 .54 .38 .52	.67 .30 .39 .33	.56 .25 .34 .27 .38
852-6615 852-6617 852-6616 852-2522 852-2516	200F25 1000G25 500G25 20D30 10D35	200 1000 500 20 10	25 25 25 30 35	½ x13/8 3/8 x1 1/8 3/8 x1 1/8 5/16 x3/4 5/16 x3/4	.67 .98 .98 .44	.54 .76 .76 .36	.39 .67 .67 .30	.34 .56 .56 .25 .25
852-2519 852-2526 852-2533 852-2559 852-2565	15D35 25E35 35E35 100F35 150F35	- 15 25 35 100 150	35 35 35 35 35 35	5/16 x 3/4 3/8 x 1 3/8 x 1 1/2 x 1 3/8 1/2 x 3/8	.44 .48 .48 .61 .69	.36 .38 .38 .48 .54	.30 .33 .33 .41 .46	.25 .27 .27 .36 .40
852-2501 852-2503 852-2509 852-2509 852-2515 852-2517 852-2523 852-6619 852-2554 852-6620	1D50 2D50 4D50 5D50 8D50 10E50 20E50 50E50 80F50 200G50	1 2 4 5 8 10 20 50 80 200	50 50 50 50 50 50 50 50 50	5/16 x 3/4 5/16 x 3/4 5/16 x 3/4 5/16 x 3/4 5/16 x 3/4 5/16 x 3/4 3/6 x 1 3/6 x 1 1/2 x 1 3/6 3/6 x 1 7/8	.44 .44 .44 .44 .44 .48 .53 .66 .98	.36 .36 .36 .36 .36 .36 .38 .44 .52	.30 .30 .30 .30 .30 .30 .30 .30 .44 .67	.25 .25 .25 .25 .25 .25 .25 .28 .32 .32 .38

	Mfr's	,			EACH					
Stock No.	Type MTV	μF	DC DC	Size, In. Dia.xL	1- 24	25- 49	50- 99	100- Up		
852-3040 852-3041 852-3062	100CB6 100CD10 300DE10	100 100 300	6 10 10	3/8 X 13/16 3/8 X 15/16 1/2 X 1	.51 .51 .66	.40 .40 .52	.35 .35 .44	.29 .29 .38		
852-3018 852-3042 852-6670 852-6672 852-3058	50CB15 100CD15 150DB15 200DE15 250DE15	50 100 150 200 250	15 15 15 15 15	3/8 x 13/16 3/8 x 15/16 1/2 x 13/16 1/2 x 1 1/2 x 1	.51 .51 .57 .66	.40 .40 .46 .52 .52	.35 .35 .33 .44 .44	.29 .29 .29 .38		
852-3069 852-3074 852-6673 852-6674 852-3020	400DJ15 500DN15 30CB25 35CB25 50CD25	400 500 30 35 50	15 15 25 25 25 25	1/2 x 1 1/4 1/2 x 1 1/2 3/8 x 1 3/16 3/8 x 1 3/16 3/8 x 1 5/16	.72 .72 .47 .51	.56 .56 .38 .40	.50 .50 .27 .35	.41 .41 .24 .29 .29		
852-6675 852-6697 852-6699 852-6701 852-6702	50DB25 75CF25 100DB25 200DE25 250DJ25	50 75 100 200 250	25 25 25 25 25 25	1/2 x 1 3/16 3/8 x 1 1/16 1/2 x 1 3/16 1/2 x 1 1/2 x 1 1/4	.57 .54 .54 .71	.46 .46 .46 .55	.33 .40 .40 .48	.29 .33 .33 .41		
852-6703 852-6659 852-6660 852-6661 852-3002	25CB35 100DB35 150DE35 200DJ35 1CB50	25 100 150 200	35 35 35 35 35 50	3/8 X ¹³ /16 1/2 X ¹³ /16 1/2 X 1 1/2 X 1 1/4 3/8 X ¹³ /16	.51 .63 .71 .71 .48	.40 .51 .55 .55	.35 .36 .48 .48	.29 .32 .41 .41		
852-3003 852-3006 852-3009 852-3013 852-6664	2CB50 5CB50 10CB50 20CB50 25CB50	2 5 10 20 20 25	50 50 50 50 50	3/8 x ¹³ / ₁₆ 3/8 x ¹³ / ₁₆ 3/8 x ¹³ / ₁₆ 3/8 x ¹³ / ₁₆ 3/8 x ¹³ / ₁₆	.48 .48 .51 .51	.38 .38 .40 .40	.33 .33 .35 .35	.28 .28 .29 .29 .33		
852-6678 852-6680 852-6694	50DB50 100DE50 4CB100	50 100 4	50 50 100	1/2 X13/16 1/2 X1 1/2 X1 3/8 X13/16	.57 .71 .47	.46 .55 .38	.33 .48 .27	.29 .41 .24		
8 4 101	Allied offer	rs fast, s	ame-day	shipment ounts. Con	of indus	trial qua	n-			

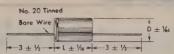
Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. Contact your nearest Allied Electronics office for fastest service.

Electrolytic Capacitors

TYPE TC AND TCN TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS

Especially designed for bypass and filtering applications. Clear plastic insulating sleeve permits positive identification of rating and polarity. Aluminum container offers small size. Type TC and TCN are single section metal tubulars with clear plastic insulating sleeve except those with the symbol (*) which have card-board sleeving. The sizes listed below for capacitors without symbol are for bare unsleeved cans. Add .015" to the diameter

and .062" to the length to allow for plastic sleeving. Dimensions for capacitors with symbol include the cardboard sleeve. Etched cathode construction is used for both Types TC and TCN to insure maximum reliability. Type TC's have 2" tinned leads. TCN's have 3" leads and are non-polar. Operating Temperature Range: _20°C to +85°C. Tolerance: _110% to +100% up to 350 WVDC; _10% to +50% for 351 WVDC and up.



ELECTROLYTIC CAPACITORS

TYPE TC (POLAR)

		LAR)

No. 20 Tinned	
Bare Wire	D ± 1/4
3 ± 1/2 = 1 ± 1/6 = 3 ± 1/2 =	+
TYPE TO (BOLAR)	

	Mfr's			Size.		EA	CH	
Stock	Type	Cap.,	WV	In.	1-	25-	50-	100-
No.	TC-	μF	DC	Dia.xL.	24	49	99	Up
854-9007	1210C	1000	12	1/2 x 1 3/8	1.26	.92	.74	.60
854-9008	1215B	1500	12	1/2×11/2	1.68	1.21	.94	.85
854-9011	15025A	250	15	3/8 X 7/8	1.13	.84	.69	.56
854-9013	1505C	500	15	3/8 x 1 3/8	1.31	1.00	.79	.66
854-9014	1501B	1000	15	1/2 x 1 3/8	1.71	1.33	1.04	. 84
854-9015	1520C	2000	15	%x1%	2.20	1.76	1.25	1.10
854-9017	1540A	4000	15	7/8×21/16	3.40	2.70	1.93	1.69
854-9019	22A	10	25	1/4 X 5/8	. 75	.54	.41	.33
854-9020	26C	25	25	1/4 X 5/8	.75	.54	.41	.33
854-9021	29C	50	25	5/16X11/16	. 84	.56	.48	.41
874-9022	2501B	100	25	3/8 x 1 3/8	.99	.70	.55	.43
854-9024	25025B	250	25	7/16X1	1.38	1.10	.79	.69
854-9025	2505C	500	25	1/2 X 3/8	1.85	1.48	1.06	.92
854-9026	2510A	1000	25	7/8 x 1 1 3/18	2.46	1.46	1.14	. 95
854-9028	2520A	2000	25	1x211/18	3.39	1.96	1.53	1.22
854-9029	31	1	50	1/4 X 5/8	.75	.54	.41	.33
854-9030	302	. 2	50	1/4×5/8	.69	.49	.39	.31
854-9032	32C	10	50	1/4 x 5/8	.75	.54	.41	.32

	Mfr's			Size,		EA	CH	
Stock	Type	Cap.,	DC DC	In.	1-	25-	50-	100-
No.	TC-	μF		Dia.xL.	24	49	99	Up
854-9033	36B	25	50	3/8 x 7/8	.80	.55	.44	.36
854-9034	39B	50	50	3/8 x 3/8	.86	.56	.47	.41
854-9035	3501D	100	50	3/8 x 1 1/8	1.04	.76	.59	.51
854-9036 854-9037	50015C 50025C	150 250	50 50	½x1 ½x1½	1.24	.97	.76 .76	.59
854-9038	50050C	500	50	1x1 ⁹ / ₁₈	1.75	1.32	1.04	.75
854-9039	50100C	1000	50	1x2 ¹ / ₁₆	2.37	1.62	1.30	1.02
854-9044	75101A	100	75	5/ ₈ x1 ⁵ / ₁₆	1.61	.99	.80	.61
854-9046	75501A	500	75	7/ ₆ x2 / ₈	2.28	1.82	1.30	1.13
854-9051	10500A	500	100	5/ ₈ x1 / ₁₆	1.23	.80	.62	.51
854-9052	10101B	100	100	%x1 ¹³ / ₁₆	1.61	.99	.86	.61
854-9055	10501A	500	100	1x2 ¹ / ₁₈	2.56	1.64	1.29	1.13
874-9056	10102	1000	100	1x3 ¹ / ₈	3.08	1.98	1.53	1.23
854-9059	42B	10	150	3/ ₆ x ¹ / ₈	.79	.56	.45	.36
854-9062	45A	20	150	3/ ₈ x1 ³ / ₈	.90	.64	.51	.41
854-9065	49A	50	150	5/8 x 1 8/1 6	1.05	.75	.59	.49
854-9067	493B	100	150	3/4 x 1 5/8	1.30	.93	.71	.58
854-9070	499A	300	150	1 x 2 1/8	2.02	1.50	1.18	1.03

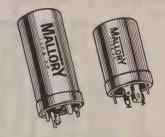
	Mfr's			Size,	EACH							
Stock No.	Type TC-	Cap., μF	WV DC	In. Dia.xL.	1- 24	25- 49	50- 99	100- Up				
854-9071 854-9073 854-9076 854-9078	50XB 52A 55B 58A	5 10 20 40	250 250 250 250 250	1/2 x 1 1/6 5/6 x 1 1/16 3/4 x 1 1/6 3/4 x 1 5/6	.86 .89 1.10 1.17	.62 .70 .88 .86	.49 .54 .63 .68	.40 .44 .55				
854-9079 854-9080 854-9095 854-9101 854-9103	59B 1265B 697B 75A 78A	50 100 4 20 40	250 250 450 450 450	34x15/16 78x25/8 5/8x11/4 7/8x15/16 1x21/16	1.32 1.68 .86 1.26 1.91	.92 1.34 .66 .86 1.02	.72 .96 .52 .71 .80	.60 .84 .44 .55				
854-9107 854-9114 854-9116	805A 90A 96A	100 4° 20°	450 600 600	13/6x213/16 11/16x27/8 11/16x27/8	2.48 1.32 2.58	1.98 1.05 2.06	1.41 .87 1.47	1.23 .85 1.28				

TYPE TCN (NON-POLAR) 854-9125 N425A 854-9127 N502A 854-9131 N5010A 13/16X11/2 1.21 1/4 X 5/8 9/16 X 1 1/4 92

STANDARD TWIST-PRONG ELECTROLYTIC CAPACITORS

Types FP, WP. Designed for filter, audio bypass and TV circuits. Precision engineered to insure stability under demanding conditions such as high ripple current, strong surge voltages and high temperatures (+85°C). Aluminum can surrounding capacitor is common negative. Both FP and WP types are constructed with etched plate anodes. All capacitors listed have standard twist-prong mounting lugs with solder terminals. Exclusive vent and seal designs make for better operation.

SPECIFICATIONS. Operating Temperature Range: -30°C to +85°C Tolerance: 3 to 50 WVDC -10%, +150%. 51 to 350 WVDC -10%, +150%. Useful Operating Life: 5 years or more when operated within working voltage, surge voltage and ambient temperature specifications. Capacitors stamped with EIA code, date of manufacture, nominal capacitance, working DC voltage, designated part number and terminal designation. Capacitors supplied with insulating washer.



- 115/32± 1/64

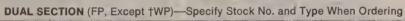
VENT

SIZE CODE-Dimensions in Inches

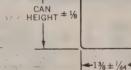
Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.
Α	1x1½	11 C	1x2	E	1x3	G.	13/4x21/2	J	1%x3½
В	1x1¾	4 D . 1	1x2½ .	F	1%x2	Н :,	13/x3	K	13/8×13/4

SINGLE SECTION (FP, Except †WP)-Specify Stock No. and Type When Ordering

Stock	Mfr's	Con	wv	Size		EA	CH		Stock	Mtr's	Cap.	wv	Size		EA	CH	. ,
No.	Туре	Cap. μF	DC	Code	1-9	10- 24	25- 49	50- Up	No.	Type	μF	DC	Code	1- 9	10- 24	25- 49	50- Up
852-7713 852-1510	059† 060.2	1000 2000	25 25	F K	2.73 4.39	2.18 3.51	1.29	1.03 1.66	852-7726 852-1533	123A† 127	500 200	200 250	H E	4.23 3.78	3.39	2.00 1.79	1.61
852-1513 852-7718	060.6A 065†	5000 500	25 -50	J F	6.63	5.30 1.75	3.13	2.50	852-7731 852-1548	132† 144A	200	300 450	G	3.07 1.89	1.51	1.66	1.33
852-7720 852-1515	066B†	500 1000	50 50	F	2.19 3.60	1.75 2.88	1.03	.83 1.55	852-1552 852-1555	146	., 80	450 450	D G	3.28	2.64	1.23	1.42
852-7723 852-1517	068† 070A	1500 2000	50	Ĥ.	3.71 5.07	2.97 4.05	2.00	1.60	852-1557 852-1558	150A 155A	100 125 90	450 450 500	H	4.12	2.90 3.30 3.05	1.94	1.56 1.78 1.74
852-1520 852-1526	116A 119A	100 300	150 150	F	1.91	1.62 2.35	.96 1.58	.77 1.26	852-1570	1187A	1 30 1 4 2 2 2 2 2 2 4 4	300	п	4.02	3.00 [2.04	1.74



852-7744 201.5A 852-7747 202.5A 852-1578 214A 852-1606 221A 852-1591 217.7A 852-1592 217.74/	150-150	35 G 50 A 150 C 250 B 250 G 250 H	1.68 1 2.55 2 4.86 3	3.31	1.57 .70 .84 .96 1.83 2.18	852-1611 852-1614 852-1635 852-1637 852-1640 852-1671	227A 227.6A 231A 234A 238A 288A	20-20 80-80 10-10 20-20 40-40 40-40	350 350 450 450 450 500	CHCDGG	2.38 1.9 4.86 3.8 2.01 1.6 2.65 2.1 3.55 2.8 4.47 3.5	8 2.10 0 1.08 2 1.25 4 1.84	.90 1.68 .87 1.00 1.53 1.69
---	---------	--	----------------------------	------	---	--	--	--	--	--------	--	--------------------------------------	--



TRIPLE SECTION-Specify Stock No. and FP Type When Ordering

852-1682						2.10 1.24										
852-1752	330.7A	30-20-10	350	. C	1.83	1.46 1.04	.91	852-1833	377.1A	40-40-40	450	J	5.07	4.05	2.40	1.92
852-1825	375.8					2 16 1 28										

TYPE HC POLARIZED

				Max.			EAC	H	
Stock No.	Mfr's Type	μF	DC DC	Ripple mA‡	Case No.	1- 9	10- 24	25- 49	50- Up
852-2040	HC5010A	1000	50	1250	2	6.37	4.38	2.55	1.96
852-2043	HC5020A	2000	50	2000	4	7.60	5.20	3.03	2.34
852-2046	HC5040	4000	50		7	10.98	7.52	4.39	3.38
852-2059	HC15010A	1000	150	1400	5	9.66	6.62	3.86	2.97
852-2063	HC20005A	500	200	1400	5	8.95	6.14	3.58	2.76
052 2077	HC4Enno+	200	450		7	12 CE	9 71	E 00	2 02

(‡) Max. permissible AC ripple at 120 Hz. For 60 Hz use 80% of number.

			C IVE	14014	-FOL	MAIZEL	,		
852-3507	NP1255A	500	125	1000	5	4.61	3.69	2.62	2.29
852-3516 852-3520	NP3025 NP4505	200 50	300 450	900 400	4	10.50 7.88	7.20 5.40	4.20 3.15	3.24
852-3521	NP4510	100	450	600	7 .	11.55	7.92	4.62	3.84

CASE SIZES

Case No.	Size, Dia.	Inches Height	Terminals
2	17/18	3%	10-32x1/4" screw
4	113/16	33/8	10-32x1/4" screw
5	113/16	43/8	10-32x1/4" screw
7	21/10	43%	10-32x1/4" screw

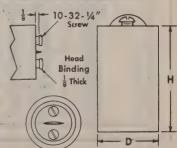
Screw terminals, mounting clamps listed elsewhere in this section.

TYPES HC AND NP DRY ELECTROLYTICS

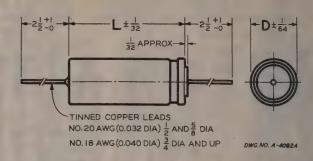
- Wide Operating Temperature Range
- Plastic Cased and Moisture Resistant
- Heavy Duty Performance
- Highest Purity Etched Foil
- Silicone Rubber Vent
- Explosion Protected

Plastic case electrolytics for heavy duty applications. Produced from the highest purity aluminum etched foil. Silicone rubber vent on top of case maintains proper electrolyte level and assures positive protection from exploding capacitors. Plastic case not sensitive to moisture. Temperature Range: —20°C to +85°C, where operation at ambient temperatures above 65°C is not expected to exceed 15% of total time. (†) For photoflash. Tolerances: Type NP, ±25%. Type HC, 10-50 WVDC —10% to +150%; 150 to 200 WVDC —10% to +100%; 450 WVDC —10% to +50%. Av. shpg. wt: 1 lb.





Specify Stock No., Mfr's Type and Capacitance When Ordering



These tubular capacitors with 21/2" axial leads offer maximum capacitance in minimum space. Well qualified for transistorized and PC applications. Completely welded construction assures freedom from open circuits even in the microvolt or millivolt signal range. End seals of improved molded phenolic. Service life of 10 or more years in normal circuit applications. Very low effective series resistance and leakage current. Especially designed for operation at temperatures up to 85°C. Plastic sleeve.

SPECIFICATIONS. Operating Temperature Range: -20°C to +85°C. Tolerance: 3 to 75 WVDC; +75%,-10%. 76 to 450 WVDC; +50%, -10%. Life Test: Capable of withstanding 500 hour life test at rated voltage and 85°C. Reverse Voltage: Withstands up to 1.5 volts without significant change in performance. Lead Pull Test: Leads withstand a steady pull of 5 pounds applied axially to the leads for 5 seconds. Capacitors have positive welded contact between cathode terminal and container for grounding purposes. Wt. 4 oz.

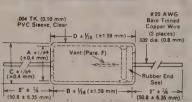
PRICE AND SIZE LOCATOR

	IIIOL /			OAIOI	•
*Price,	Dia.		E,	ACH	
Size Code	x L., inches	1- 9	10- 24	25- 49	50- Up
EE EJ EL FJ FL FP GL GP HE	% 6 x 1 1/4 % 6 x 2 1/4 11/6 x 1 3/4 11/6 x 2 2/4 11/6 x 2 2/4 13/6 x 2 2/4 15/6 x 1 1/4	2.50 2.20 2.29 2.70 2.49 2.69 2.69 2.76 2.49	2.09 1.82 1.87 2.00 2.03 2.20 2.20 2.26 2.03	1.43 1.15 1.18 1.80 1.27 1.39 1.39 1.43 1.27	1.26 .93 .95 1.50 1.03 1.13 1.13 1.16 1.03
HL HP JE JL JP JS JT	15/16X21/4 15/16X21/4 11/16X21/4 11/16X21/4 11/16X31/4 11/16X31/4	3.21 3.25 2.56 3.44 3.48 3.89 2.49	2.62 2.65 2.09 2.80 2.83 3.16 2.03	1.64 1.66 1.31 1.74 1.76 1.95 1.27	1.32 1.33 1.05 1.40 1.41 1.56 1.03

Stock	Mfr's Type	μF	WV	Size
No.	39D-		DC	Code*
926-5661	108G010FJ4	1000	10	FJ
926-5706	168G010FL4	1600	10	FL
926-5825	508G010HP4	5000	10	HP
926-5666	109G010JT4	10000	10	JT
926-5842	607G015EL4	600	15	EL
926-5680	128G015FL4	1200	15	FL
926-5779	258G015GP4	2500	15	GP
920-5805	408G015JL4	4000	15	JL
926-5857	808G015JT4	8000	15	JT
926-5733	207G025EJ4	200	25	EJ
926-5820	507G025HE4	500	25	HE
926-5662	108G025GL4	1000	25	GL
926-5747	228G025HP4	2200	25	HP
926-5806	408G025JT4	4000	25	JT
926-5697 926-5765 926-5821 926-5674	157G030EJ4 257G030EL4 507G030EF4 118G030GP4	150 250 500 1100	30 30 30 30	EL FL GP

Stock No.	Mfr's Type 39D-	μF	WV DC	Size Code*
926-5794	308G030JS4	3000	30	JS
926-5817	506G050EE4	50	50	EE
926-5766	257G050HE4	250	50	HE
926-5822	507G050GL4	500	50	GL
926-5675	118G050HP4	1100	50	HP
926-5754	238G050JT4	2300	50	JT
926-5763	256F150EJ4	25	150	EJ
926-5813	506F150FJ4	50	150	FJ
926-5653	107F150FP4	100	150	FP
926-5764	257F150HP4	250	150	HP
926-5833	537F150JT4	530	150	JT
926-5728	206F250EL4	20	250	EE
926-5814	506F250JE4	50	250	JE
926-5654	107F250HL4	100	250	HL
926-5732	207F250JP4	200	250	JP
926-5730	206F450GL4	20	450	GL

ALUMINUM TUBULAR COMPUTER GRADE CAPACITORS



SIZE CHART*

	Last 3 le of Mfr's T termine ca	ype Nur	nber de-	,
	Size Code	Dia. (A)	Lgth. (B	1
-	DON DIG DIN EIG GIL	7/16 7/16 7/16 1/2 5/8	3/4 13/6 13/4 13/6 15/8	
	G2L J1L J2L L2C N1C	5/8 3/4 3/4 3/4 1/8	2 1/8 1 1/8 2 1/8 2 1/8 1 1/8	
	N1L N2L N3C N3L	1 1 1	1 % 2 % 3 % 3 %	

Useful life expectancy of approximately ten years when operated within rated working volts DC, surge voltage and ripple current as applied in computer type power supply circuitry where duty cycle and ambient temperatures are more severe than standard. Low dissipation factor also insures long operating life. Shelf life approximately three years with storage temperatures not to exceed +40°C. Std. PVC insulating sleeve. Pressure sensitive safety vent. Positive welded connection between metal case and negative terminal for ground-

11.00	Mir's					EA	CH	
Stock No.	Type* TCG	Cap. μF	WV	†	1-24	25- 49	50- 99	100- Up
852-5149 852-5167 852-5170 852-5173 852-5179	502U010N1L 402U015N1L 802U015N2L 103U015N3C 121U025D0N	5000 4000 8000 10000 120	10 15 15 15 25	1,073 954 1,353 1,670 165		1.84 2.27 2.27	1.44 1.76 1.76	1.23 1.51 1.51
852-5188 852-5190 852-5200 852-5215 852-5218	222U025J2L 251U030D1G 500U050D0N	1000 2200 250 50 100	25 25 30 50 50	827 962 239 114 175	2.41 2.98 2.07 1.97 2.01	1.75 1.20 1.15	1.09 1.33 .93 .89	.80

(†) Max AC Ripple Current In mA at 120 Hz and 85°C.

Feature Can Wall Safety Vents
 Low ESR

- Temperature Range of −40°C to +85°C
 Up to 10 Years Life
- Standard PVC Insulating Sleeve
 All Welded Construction
- Meets Demands for High Quality Performance and High C/V

SPECIFICATIONS: Operating Temperature Range: -40°C to +85°C. Tolerance: 3-75 WVDC -10%, +75%; 76-450 WVDC -10%, +50%. Reverse Voltage: Not to exceed 1.5 volts. DC Leakage Current: Will not exceed one milliampere at +25°C. Lead Strength: Will withten a pull of 5 peuple wight for parient withstand a pull of 5 pounds axially for a period of 5 seconds. Will withstand four bends without breaking. These capacitors may be subjected, without permanent damage, to conditions in transit where the storage temperature may range from -65°C to +85°C and the altitude may be up to 200,000 feet.

2	Mfr's					EA	CH	
Stock No.	Type* TCG	Cap. μF	DC DC	†	1- 24	25- 49	50- 99	100- Up
852-5220 852-5228 852-5237 852-5239 852-5254		150 500 2300 2500 50	50 50 50 50 150	199 445 1,231 1,381 171	2.07 2.42 3.91 3.91 2.12	1.41 2.28	1.76	.80 .95 1.51 1.51
852-5256 852-5259 852-5270 852-5290 852-5295	201T250N3C 100T450G1L	100 250 200 10 20	150 150 250 450 450	328 563 542 298 135	2.41 2.97 3.19 2.27 2.88	1.74 1.87 1.32	1.09 1.33 1.44 1.02 1.66	1.24

CAPACITORS

Computer-Grade Electrolytic Capacitors

TYPE CGS AND CG COMPUTER-GRADE CAPACITORS

TYPE CGS -40° TO +65°C ELECTROLYTICS

	1112 000							
Stock	Type*	μ F	V	Max.		EA	СН	
No.	CGS3PH		DC E	AC Ripple	1- 9	10- 24	25- 49	50- Up
		10.000		_	3.17	2.65	2.18	1.95
852-0824 852-0999	123U010R2C 763U010V4C	12,000 76,000	10	12.1	7.45	6.17	5.15	4.58
852-0895	284U010X5R	280,000	io	23.6	18.26	16.49	13.73	12.26
852-0962	552U015BB1	5,500	15	3.0	2.83	2.26	1.61	1.40
852-1015	892U015R2C	8,900	15	4.0	3.17	2.63	2.18	1.95
852-0888	253U015R4C	25,000	15	6.9	4.63	3.83	3.19	2.85
852-0930	383U015V3C	38,000	15	10.6	5.87	4.26	3.56	3.17
852-0874	214U015X5R	210,000		23.6	18.26 3.17	16.49 2.63	13.73 2.18	12.26
852-0953 852-0968	472U025R2C 562U025BD1	4,700 5,600	25 25	3.4	3.17	3.18	2.18	2.22
852-1016	892U025R3C	8,900	25	4.7	3.83	3.17	2.65	2.36
852-1016	133U025R4C	13,000	25	5.8	4.63	3.83	3.19	2.85
852-0871	203U025V3C	20,000	25	9.7	5.87	4.26	3.55	3.17
852-0897	293U025V4C	29,000	25	11.8	7.45	6.17	5.15	4.58
852-0875	222U040BB1	2,200	40	2.6	3.29	2.63	2.10	1.84
852-0891	272U040R2C	2,700	40	2.9	3.17	2.63	2.18	1.95
852-0961	512U040R3C	5,100	40	4.0	3.83	3.17	2.65	2.36
852-0815	113U040V3C	11,000	40	8.8	6.14	4.46	3.72	3.32
852-0936 852-0976	403U040X4C 633U040X5R	40,000 63,000	40	15.3 16.0	14.02 18.24	11.24 16.48	7.98 13.73	6.97
-								1.79
852-0876 852-0837	222U050R2C 412U050R3C	2,200 4,100	50	2.8	3.17	2.63 3.17	2.18 2.65	2.36
852-0974	612U050R4C	6,100	50	6.7	4.63	3.83	3.19	2.85
852-0873	203U050V5L	20,000	50	12.2	9.91	8.20	6.83	6.11
852-0813	112U075R2C	1,100	75	2.9	3.32	2.75	2.28	2.04
852-0870	212U075R3C	2,100	75	4.1	3.83	3.17	2.64	2.36
852-0955	482U075V3C	4,800	75	6.8	5.87	4.26	3.56	3.17
B52-0935	402U100DF1			5.8	8.48	7.23	5.78	5.06
852-0866	201T250BB1	200	250	1.4	3.04	2.61	2.08	1.82

TYPE CG -40C° TO +85°C ELECTROLYTICS

	TITE OG	00 10	. 00	OLLLO	IIIOL.			
Stock	Type*	μF	V	Max. AC		EAC	H	
No.	CG3PH		DC	Ripple	1- 9	10- 49	50- 99	100- Up
852-0607 852-0617 852-0653 852-0689 852-0713	123U015R3C 152U25A1 332U025R2C 632U025R3C 922U025R4C	12,000 1,500 3,300 6,300 9,200	15 25 25 25 25 25	3.1 1.57 1.9 2.6 3.2	3.39 2.66 3.04 3.67 4.37	2.71 2.03 2.09 2.55 2.99	1.93 1.60 1.70 2.09 2.45	1.68 1,31 1.44 1.84 2.20
852-0600 852-0637 852-0668 852-0686 852-0511	103U025U3C 232U035R2C 432U035R3C 632U035R4C 82U50A1	10,000 2,300 4,300 6,300 800	26 35 35 35 50	4.1 1.7 2.3 2.8 1.55	3.95 3.05 3.39 4.39 2.52	2.71 2.42 2.71 2.99 2.01	2.21 2.03 1.93 2.45 1.43	1.87 1.59 1.68 2.20 1.25
852-0621 852-0507 852-0675 852-0676 852-0712	152U050R2C 23U50C1 452U50D1 502U050U3C 952U050V4C	1,500 2,000 4,500 5,000 9,500	50 50 50 50 50	2.1 2.3 3.8 3.5 5.6	3.04 3.31 5.50 4.34 6.80	2.09 2.65 4.40 2.98 4.67	1.70 1.88 3.13 2.43 3.82	1.44 1.65 2.73 2.17 3.41
852-0640 852-0510 852-0619 852-0674 852-0665	223U050X4C 13U75B1 152U075R3C 492U075V4C 402U100W4C	22,000 1,000 1,500 4,900 4,000	50 75 75 75 75 100	8.6 1.55 2.2 4.5 4.2	11.27 3.67 3.72 6.83 9.57	7.73 2.78 2.55 4.67 6.55	6.32 2.18 2.09 3.82 5.36	5.94 1.94 1.92 3.41 4.95
852-0685 852-0508 852-0635	592U100X4C 13T200D1 241T450D1	5,900 1,000 240	100 200 450	5.0 2.7 1.35	10.26 6.03 5.44	7.03 4.51 4.06		4.88 2.90 2.60

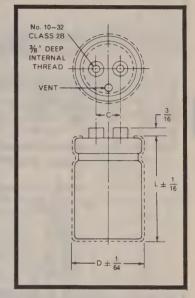
SPECIFY STOCK NO.. MFR'S TYPE NO. AND CAPAC-ITANCE WHEN ORDERING



- Operating Life Exceeds Ten Years
- Wide Temperature Ranges
- Pressure-Sensitive Safety Vent
- Very Low ESR
- Low Leakage Current

Useful life expectancy of approximately ten years when operated with-in rated working volts DC, surge volt-age, and ripple current as applied in computer type power supply circuitry where duty cycle and ambient temwhere duty cycle and ambient temperature are more severe than standard. Tolerance: 0-150 working volts DC, -10%, +75%; 200 working volts DC and up, -10%, +75%. Pressure sensitive safety vent. 32" high terminal posts; 10-32 screws.

Although temperature range for both CGS and CG are as stated at left, tests have been conducted at 105°C and a voltage less than rated without incurring immediate catastrophic failure. These capacitors withstand six hours of vibration over a frequency range of 10 to 55 cps and return, traverse within a period of one minute with a maximum amplitude of vibrations of .03" (total excursion). See Index for VR mounting clamps. 3 oz.



SIZE CODE TABLE (LAST 3 DIGITS IN TYPE NO.* INDICATE SIZE-SEE BELOW)

13/8"	13/4"	2"	21/2"	3"
BB, R2C 21/6	U2C 21/6	V2C 21/a	W3C 31/s	X3L 3%
R2L 2%	U2L 2%	V2L 25/8	W3L 3%	X4C 41/8
B1, BD, R3C 31/4	· U3C 31/8	V3C 31/4	W4C 41/8	X4L 4%
R3L 3%	U3L 3%	V3L 3%	W4L 4%	
R4C 41/8		D1, V4C 41/8	W5C 51/a	
R4L 4%	U4L 4%	V4L 4%	W5L 5%	X5R 5%
R5C 51/6	U5C 5%	V5C 51/8 >	5 5 5 5 5	XCL 6%
R5L 5%	U5L 5%	V5L 51/8		X7L 7%
				X8L 85%
1/2"	7∕8″	7/8"	11/6"	1¼"
	BB, R2C 2% R2L 2% B1, BD, R3C 3% R3L 3% R4C 4% R4L 4% R5C 5% R5L 5%	BB, R2C 2½ U2C 2½ R2L 2% U2L 2% B1, BD, R3C 3½ U3C 3½ R3L 3½ U3L 3½ R4C 4½ R4L 4½ U4L 4½ R5C 5½ U5C 5½ R5L 5½ U5L 5½	BB, R2C 2½ U2C 2½ V2C 2½ R2L 2% U2L 2% V2L 2% B1, BD, R3C 3½ U3C 3½ V3C 3½ R3L 3% U3L 3% V3L 3% R4C 4½ D1, V4C 4½ R4L 4½ U4L 4½ V4L 4% R5C 5½ U5C 5½ V5C 5½ R5L 5% U5L 5%	BB, R2C 2½ U2C 2½ V2C 2½ W3C 3½ R2L 2½ U2L 2½ V2L 2½ W3L 3½ B1, BD, R3C 3½ U3C 3½ V3C 3½ W4C 4½ R3L 3¾ U3L 3¾ V3L 3¾ W4L 4½ R4C 4½

TYPE 36D "POWERLYTIC" INSULATED COMPUTER-GRADE ALUMINUM ELECTROLYTICS

Terminal tapped 10-32. Temp. range: -20° to $+65^{\circ}$ C. Tolerance: 3-50 WV, -10%, +75%; 75-450 WV, -10%, +50%. Av. wt. $1\frac{1}{2}$ lbs.

Size *Code	Dia. x L. Inches	Size *Code	Dia. x L. Inches	Size *Code	Dia. x L- Inches
A	17/10 x 21/2	E	21/16 x 41/2		31/10 x 41/2
В	11/10 x 31/2	F	2%16 x 31/2	J.	31/10 X 5
C	17/10 x 41/2	G	2%16 x 41/2	K	31/10 X B
Ď	21/18 x 31/2	H	2%16 x 5		

- Max. Space Economy at Temperatures to 65°C
- Superior Electrical and Life Characteristics

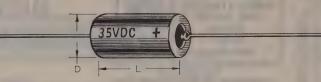
Provides maximum capacitance in a given size. Low ESR and leakage currents. Extremely long shelf life. Plastic insulating tube withstands military environment conditions including -55°C storage tests. Pressure safety vents employing silicone rubber. Large selection of types available from stock.



Stock	Type	E	WV	*		tA:	GH		Stock	Tuna		wv	*		E/	ICH	
No.	36D 2A		DC	Τ	1- 9	10- 24	25- 49	50- Up	No.	36D 2A		DC	*	1-	10- 24	25- 49	50- Up
926-5619 926-5331 926-5389 926-5440 926-5531	922G015AB 133G015AC 213G015BB 313G015BC 543G015CC	13000 21000 31000	15 15 15	BCDEG	4,24 5.00 6.65 8.05 12.18	3.39 4.00 5.32 6.44 9.75	2.41 2.85 3.78 4.58 6.92	2.10 2.49 3.30 4.00 6.05	926-5311 926-5397 926-5489 926-5326 926-5434	113F075CD 223G075DF 451F100AA 132F100AC 302F100BC	11000 22000 450 1300 3000	75 100 100	HKACE	13.16 15.48 3.50 5.00 8.05	10.53 12.33 2.80 4.00 6.44	7.48 11.50 1.99 2.85 4.58	6.53 11.13 1.74 2.49 4.00
926-5418 926-5597 926-5366 926-5442 926-5536	272G025AA 822G025AC 183G025BC 323G025CC 552G040AC	8200 18000 32000	25 25 25	ACHGC	3.50 5.00 8.05 12.18 5.00	2.80 4.00 6.44 9.75 4.00	1.99 2.85 4.58 6.92 2.85	1.74 2.49 4.00 6.05 2.49	926-5615 926-5384 926-5585 926-5402 926-5483	901F150AC 212F150BC 782F150DF 251F200AA 431F200AB	2100 7800 250		CCKAB	5.00 8.05 15.48 3.50 4.24	4.00 6.44 12.33 2.80 3.39	2.85 4.58 11.50 1.99 2.41	2.49 4.00 11.13 1.74 2.11
926-5602 926-5321 926-5409 926-5328 926-5414	842G040BB 123G040BC 253G040CD 132G050AA 262G050AB	12000 25000	40 40 50	D E H A B	6.65 8.05 13.16 3.50 4.24	5.32 6.44 10.53 2.80 3.39	3.78 4.58 7.48 1.99 2.41	3.30 4.00 6.53 1.74 2.10	926-5569 926-5354 926-5525 926-5520 926-5316	641F200AC 162F200CB 552F200DF 531F250AC 122F250BC	1600 5500 530	200 200 200 250 250 250	CFFCE	5.00 9.78 15.48 5.00 8.05	4.00 7.82 12.33 4.00 6.44	2.85 5.55 11.50 2.85 4.58	2.49 4.85 11.13 2.49 4.00
926-5467 926-5556 926-5617 926-5345 926-5399	392G050AC 602G050BB 902G050BC 153G050CC 223G050DC		50 50 50	CDEGE	5.00 6.65 8.05 12.18 11.25	4.00 5.32 6.44 9.75 8.96	2.85 3.78 4.58 6.92 8.35	2.49 3.30 4.00 6.05 8.08	926-5436 926-5491 926-5309 926-5356 926-5407	302F250DC 452F250DF 112F350CC 162F350DC 252F350DF	3000 4500 1100 1600 2500	250 350 350	CKGCK	11.25 15.48 12.18 11.25 15.48	8.96 12.33 9.75 8.96 12.33	8.36 11.50 6.92 8.36 11.50	8.09 11.13 6.05 8.09 11.13
926-5405 926-5465 926-5547	252F075AC 392F075BB 592F075BC	2500 3900 5900	75	C D E	5.00 6.65 20.05	4.00 5.32 6.44	2.85 3.78 4.88	2.49 3.30 4.00	926-5510 926-5446 926-5609	500F450AA 331F450BC 861F450DC		450 450 450	A E	3.50 8.05 11.25	2.80 6.44 8.96	1.99 4.58 8.36	1.74 4.00 8.09

Military Solid-Tantalum Capacitors

MIL TYPE CSR13 AND CS13-PLASTIC INSULATING SLEEVE



- Subminiature Hermetically Sealed Units
- Type CSR13 Temperature Rating: -55°C to +251°C
- Type CS13 Temperature Rating: -55°C to +85°C
- 2000-Cycle Vibration Test, 50g Shock Test
- CSR13 Life Test: 10,000 Hours
- CS13 Life Test: 2000 Hours

units meet MIL-C-39003/1A specifications. Life test: 10,000 hours. Tighter leakage current and dissipation factor over MIL-C-26655B. Low impedance above 1 MHz. 2000-cycle vibration test, 50g shock test. Temperature, -55° to +125°C. TYPE CSR13. Subminiature hermetically sealed

TYPE CS13. Subminiature hermetically sealed

units meeting MIL-C-26655B. Interchangeable with, and superior to MIL-C-26655A. Life test: 2000 hours. -55° to +85°C. 2000 cycle vibration, 50g shock. * In table right, indicates maximum leakage at 25°C after application of rated voltage for 5 min. For size and price of capacitors, see Case Size code, then refer to appropriate listing in tables below.

† NOTE: Allied will supply Type CSR13 or Type CS13 at "L" level, whichever is in stock.

CSR13 1% (M) FAILURE RATE PRICE AND SIZE LOCATOR

Case	Diameter x Length	EACH						
Size	(Inches)	1-49	50-99	100-999	1000-Up			
A	.135x.286	.95	.55	.47	.40			
A-1	.135x.286	1.00	.60	.53	.45			
В	.185x.474	1.05	.62	.53	.44			
B-1	.185x.474	1.10	.67	.58	.49			
C	.289x.686	2.27	1.33	1.13	.96			
C-1	.289x.686	2.37	1.43	1.23	1.06			
D	.351x.786	3.96	2.31	1.98	1.65			

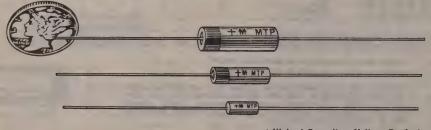
CSR13 2% (I) FAILURE BATE AND CS13 PRICE AND SIZE LOCATOR

Case	Diameter x Length		EACH						
Size	(Inches)	1-49	50-99	100-999	1000-Up				
F	.135x.286	.79	.46	.40	.33				
F-1	.135x.286	.84	.51	.45	.38				
F.	.185x.474	.90	.53	.46	.37				
F-1	.185x.474	.95	.58	.42	.42				
G	.289x.686	2.11	1.15	1.06	.89				
H	.351x.786	3.80	2.21	1:89	1.53				

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						
S52-4155			Cap.,			
B52-4159						
852-4168 D335KM 3.3 15 0.8 A 852-4170 D186KM 18 15 3.5 B 852-4170 D26KM 22 15 4.0 B 852-4172 D686KM 68 15 10.0 C 852-4176 E155KM 1.2 20 0.6 A 852-4178 E155KM 1.5 20 0.6 A 852-4180 E106KM 10 20 B 852-4180 E166KM 15 20 4.0 B 852-4180 E136KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4188 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35						
852-4168 D335KM 3.3 15 0.8 A 852-4170 D186KM 18 15 3.5 B 852-4170 D26KM 22 15 4.0 B 852-4172 D686KM 68 15 10.0 C 852-4176 E155KM 1.2 20 0.6 A 852-4178 E155KM 1.5 20 0.6 A 852-4180 E106KM 10 20 B 852-4180 E166KM 15 20 4.0 B 852-4180 E136KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4188 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35						В
852-4168 D335KM 3.3 15 0.8 A 852-4170 D186KM 18 15 3.5 B 852-4170 D26KM 22 15 4.0 B 852-4172 D686KM 68 15 10.0 C 852-4176 E155KM 1.2 20 0.6 A 852-4178 E155KM 1.5 20 0.6 A 852-4180 E106KM 10 20 B 852-4180 E166KM 15 20 4.0 B 852-4180 E136KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4188 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35						A
852-4169 D186KM 18 15 3.5 B 852-4170 D26KM 22 15 4.0 B 852-4172 D686KM 68 15 10.0 C 852-4176 E125KM 1.2 20 0.6 A 852-4178 E225KM 2.2 20 0.8 A 852-4188 E106KM 10 20 B 852-4180 E106KM 15 20 4.0 B 852-4184 E336KM 33 20 7.0 C 852-4188 E476KM 47 20 9.0 C 852-4189 E107KM 100 20 D 852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4193 F106KM 47 35						
852-4170 D226KM 22 15 4.0 B 852-4172 D886KM 68 15 10.0 C 852-4175 E125KM 1.2 20 0.6 A 852-4178 E225KM 2.2 20 0.8 A 852-4180 E106KM 10 20 B 852-4480 E106KM 15 20 4.0 B 852-4484 E336KM 33 20 7.0 C 852-4184 E336KM 47 20 9.0 C 852-4189 E107KM 47 20 9.0 C 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35 16.0 D 852-4204 G473KM .01 50 .5 A-1 852-4204 G473KM .1 50					0.8	A
852-4176 E155KM 1.5 20 0.6 A 852-4178 E225KM 2.2 20 0.8 A 852-4480 E166KM 10 20 B 852-4484 E336KM 15 20 4.0 B 852-4184 E336KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4204 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4213 G334KM .33 5				15		В
852-4176 E155KM 1.5 20 0.6 A 852-4178 E225KM 2.2 20 0.8 A 852-4480 E166KM 10 20 B 852-4484 E336KM 15 20 4.0 B 852-4184 E336KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4204 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4213 G334KM .33 5			22	15		В
852-4176 E155KM 1.5 20 0.6 A 852-4178 E225KM 2.2 20 0.8 A 852-4480 E166KM 10 20 B 852-4484 E336KM 15 20 4.0 B 852-4184 E336KM 33 20 7.0 C 852-4186 E476KM 47 20 9.0 C 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4195 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4204 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4213 G334KM .33 5						C
852-4178 E225KM 2.2 20 0.8 A 852-4480 E106KM 10 20 B 852-4400 E156KM 15 20 4.0 B 852-4184 E336KM 33 20 7.0 C 852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4196 F476KM 47 35 16.0 D 852-4196 G103KM .01 50 0.5 A-1 852-4206 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4218 G395KM 3.9 <t< th=""><th></th><th></th><th>1.2</th><th></th><th></th><th>A</th></t<>			1.2			A
852-4480 £106KM 10 20 B 852-4400 £156KM 15 20 4.0 B 852-4184 £336KM 33 20 7.0 C 852-4189 £476KM 47 20 9.0 C 852-4191 £685KM 6.8 35 3.0 B 852-4192 £26KM 22 35 8.0 C 852-4196 £7476KM 47 35 16.0 D 852-4196 £104KM .01 50 0.5 A-1 852-4204 £6473KM .047 50 0.5 A-1 852-4206 £104KM .1 50 A-1 852-4207 £154KM .15 50 0.5 A-1 852-4208 £334KM .33 50 0.5 A-1 852-4211 £105KM 1 50 A-1 852-4218 £395KM 3.9	852-4176	E155KM	1.5	20	0.6	A
852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4196 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G106KM 4.7 50 3.5 B-1 852-4213 G106KM 0					0.8	
852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4196 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G106KM 4.7 50 3.5 B-1 852-4213 G106KM 0			10			В
852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4196 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G106KM 4.7 50 3.5 B-1 852-4213 G106KM 0					4.0	В
852-4189 E107KM 100 20 D 852-4191 F685KM 6.8 35 3.0 B 852-4192 F226KM 22 35 8.0 C 852-4196 F476KM 47 35 16.0 D 852-4199 G103KM .01 50 .5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G106KM 4.7 50 3.5 B-1 852-4213 G106KM 0					7.0	C
852-4199 G103KM .01 50 0.5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4379 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G476KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1	852-4186	E476KM	47	20	9.0	C
852-4199 G103KM .01 50 0.5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4379 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G476KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1	852-4189	E107KM	100			D
852-4199 G103KM .01 50 0.5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4379 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G476KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1				35		В
852-4199 G103KM .01 50 0.5 A-1 852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM .1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4379 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4223 G476KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1			22	35	8.0	C
852-4204 G473KM .047 50 0.5 A-1 852-4206 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4379 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1					16.0	
852-4206 G104KM 1 50 A-1 852-4207 G154KM .15 50 0.5 A-1 852-4378 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1	852-4199	G103KM	.01	50	0.5	A-1
852-4207 G154KM 15 50 0.5 A-1 852-4378 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1					0.5	
852-4219 G224KM .22 50 0.5 A-1 852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1						
852-4208 G334KM .33 50 0.5 A-1 852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1			.15			A-1
852-4211 G105KM 1 50 A-1 852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1			.22			
852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1	852-4208	G334KM	.33	50	0.5	A-1
852-4218 G395KM 3.9 50 3.0 B-1 852-4219 G475KM 4.7 50 3.5 B-1 852-4223 G106KM 10 50 C-1						
852-4223 G106KM 10 50 C-1					3.0	
					3.5	B-1
852-4224 G126KM 12 50 6.0 C-1						
	852-4224	G126KM	12	50	6.0	C-1

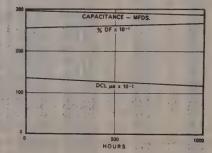
Stock No.	Type† CSR13-	Cap., μF	WV DC	Leak. μΑ°	Case Size
852-4307 852-4313 852-4317 852-4319 852-4323	B187KL C107KL D335KL D226KL D157KL	180 109 3.3 22 150	6 10 15 15	11.0 10.0 0.8 4.0 20.0	G E F H
852-4325 852-4327 852-4329 852-4331 852-4333	E155KL E225KL E106KL E156KL E336KL	1.5 2.2 10 15 33	20 20 20 20 20 20	0.6 0.8 3.0 4.0 7.0	EEFF
852-4335 852-4337 852-4339 852-4341 852-4342	E476KL E686KL E107KL F685KL F226KL	47 68 100 6.8 22	20 20 20 35 35	9.0 14.0 20.0 3.0 8.0	G H H F G
852-4346 852-4348 852-4349 852-4280 852-4350	F476KL G474KL G684KL G104KL G105KL	47 0.47 0.68 .1 1.0	35 50 50 50 50	16.0 0.5 0.6	H E-1 E-1 E-1
852-4354 852-4357 852-4358 852-4369 852-4377	G225KL G395KL G475KL G103KL G224KL	2.2 3.9 4.7 .01 .22	50 50 50 50 50	1.7 3.0 3.5 .05	F-1 F-1 F-1 E-1 E-1

TYPE MTP ULTRAMINIATURE TANTALUM CAPACITORS



- D Max. CASE INSULATED Red epoxy to indicate Positive Lead Size: .020" ±.001 Diameter
- This sintered tantalum anode polar wet slug capacitor offers higher capacity-voltage than ordinary wet slug, solid or foil tantalum capacitors. Meets or exceeds MIL-STD-202 for higher frequency vibration, shock, temperature and immersion cycling, moisture resistance, and sleeving dielectric strength and insulation resistance. Silver case, closed on elastomer end seals. The anode lead weld is protected by epoxy resin encapsulation, with outer insulating sleeve covering entire unit. When ordering, please specify stock no. mfr's type no. and capacitance for all orders.
- Highest Capacity Voltage Product
 ideal for Miniature Circuits
 Low Profile Geometry Compatible
 With Microelectronics
 —55° to +85C° Operating Temp.
 +20% Tolerance
 Long Storage Life

TYPICAL PERFORMANCE LIFE TEST



Case	Diameter		EACH					
Size†	x Length	1-	10-	25-	50-			
Code	Inches	9	24	49	Up			
A B C D	.115x.400	3.08	2.89	2.50	1.88			
	.145x.590	3.74	3.01	2.63	2.26			
	.225x.775	4.31	3.50	3.05	2.62			
	.115x.312	3.19	2.60	2.27	1.94			

Stock No.	Mfr's Type MTP-	Cap., μF	WVDC 85°C	at	D.C.L. Max. C in µA	Max. DF @ 25°C	† Code
852-2738 852-2785 852-2705 852-2759	187M006P1B 477M006P1C 106M010P1D 336M010P1A	180 470 10 33	6 6 10 10	2.0 2.0 2.0 2.0 2.0	8.0 10.0 6.0 6.0	37 50 20 30	B C D A
852-2713 852-2755 852-2765 852-2744	107M101P1B 307M101P1C 337M101P1C 226M015P1A	100 300 330 22	10 10 10 15	2.0 2.0 2.0 2.0	8.0 10.0 10.0 6.0	33 35 35 33	B C C A
852-2816 852-2741 852-2749 852-2801	806M015P1B 207M105P1C 227M015P1C 685M020P1D	80 200 220 6.8	15 15 15 20	2.0 2.0 2.0 2.0	8.0 10.0 10.0 6.0	30 30 30 20	BCCCD
852-2781 852-2792 852-2735 852-2707 852-2770	476M020P1B 606M020P1B 157M020P1C 106M030P1A 456M030P1B	47 60 150 10 45	20 20 20 30 30	2.0 2.0 2.0 2.0 2.0 2.0	8.0 8.0 10.0 6.0 8.0	25 25 30 20 25	B B C A B
852-2722 852-2775 852-2708 852-2716	127M030P1C 475M035P1D 106M035P1A 107M035P1C	120 4.7 10 100	30 35 35 35	2.0 2.0 2.0 2.0	10.0 6.0 6.0 10.0	30 20 20 25	C D A C
852-2752 852-2762 852-2813 852-2757	306M050P18 336M050P1B 786M050P1C 335M060P1D	30 33 78 3.3	50 50 50 60	2.0 2.0 2.0 2.0	8.0 8.0 10.0 6.0	20 20 20 15	8 C D
852-2804 852-2747 852-2783	685M060P1A 226M060P1B 476M060P1C	6.8 22 47	60 60 60	2.0 2.0 2.0	6.0 8.0 10.0	20 20 20	A B C

Solid Electrolyte Tantalum Capacitors

TDC DIPPED SOLID TANTALUM CAPACITORS

- Hard, Dip Coated Epoxy Coating Tinned Nickel Leads
- For Commercial, Industrial and Entertainment Electronics

						EA	СН	
Stock No.	Mfr's. Type	Cap. μF	WVDC @85°C	Case Size	1- 24	25- 49	50- 99	100- Up
852-5651 852-5655 852-5656 852-5657	TDC685M006EL TDC475M010EL TDC336M010FL TDC107M010GL	6,8 4,7 33 100	6 10 10	шшщ	.93 .93 .98 1.79	.75 .75 .78 1.43	.63 .63 .69	.58 .58 .60 .72
852-5660 852-5662 852-5663 852-5664	TDC226M015FL TDC157M015HL TDC225M020EL TDC156M020FL	22 150 2.2 15	15 15 20 20	F H E F	.97 3.96 .93 1.12	.78 3.17 .75 .89	.69 2.18 .63 .67	.60 1.58 .58 .62
852-5665 852-5666 852-5668 852-5669	TDC336M020GL TDC476M020GL TDC107M020HL TDC685M025FL	33 47 100 6.8	20 20 20 25	GGHF	1.79 1,79 3.96 1.26	1.43 1.43 3.17 1.01	.99 .99 2.18 .70	.72 .72 1.58
852-5670 852-5671 852-5674 852-5675	TDC106M025FL TDC226M025GL TDC105M035EL TDC155M035EL	10 22 1 1.5	25 25 35 35	FGHH	1.26 1.79 .93 .93	1.01 1.43 .75 .75	.70 .99 .63	.51 .72 .58 .58
852-5676 852-5677 852-5678 852-5679	TDC225M035FL TDC335M035FL TDC475M035FL TDC685M035FL	2.2 3.3 4.7 6.8	35 35 35 35	FFF	1.26 1.26 1.26 1.26	1.01 1.01 1.01 1.01	.70 .70 .70 .70	.51 .51 .51
852-5680 852-5682 852-5684 852-5685	TDC106M035FL TDC226M035GL TDC476M035HL TDC104M050EL	10 22 47	35 35 35 50	FGHE	1.79 2.81 2.81 1.01	1.43 2.25 2.25 .81	.99 1.55 1.55 .65	.72 1.12 1.12 .61
852-5687 852-5688 852-5689 852-5690	TDC224M050EL TDC334M050EL TDC474M050EL TDC684M050EL	.22 .33 .47 .68	50 50 50 50	FEEE	1.01 1.01 1.01 1.01	.81 .81 .81 .81	.65 .65 .65	.61 .61 .61
852-5691 852-5693 852-5695	TDC105M050EL TDC225M050FL TDC106M050GL	1.0 2.2 10	50 50 50	E F G	1.01 1.30 2.81	.81 1.05 2.25	.65 .72 1.55	.61 .52 1.12



Case Sizes E & F
Color Code Marking Instructions

Case Sizes G & H
Color Code Marking Instructions

TDC tantalums have a hard, dip coated epoxy coating and are supplied with tinned nickel radial leads. TDC's exhibit the same long shelf life and performance as other solid tantalum capacitors and are ideally suited for use in industrial, commercial and entertainment electronics.

· Low Cost

- Radial Leads
- ±20% **Tolerance**
- Space Saving

CAPACITANCE AND VOLTAGE COLOR CODE

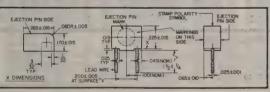
Color	1st Signi- ficant Figure	2nd Signi- ficant Figure	Rated Volts Multiplier@+85°C
Black Brown Red Orange Yellow Green Blue Violet Grey White	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8	100 10 100 15 10000 20 100000 25 1000000 35 10000000 50

DIMENSIONS

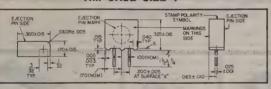
	Case			In Inches	Lead Spacing	Case
	Size	Dia.	Ht.	(±.002)	(±.015)	Markings
•	E	.175	.350	.020 (#24AWG)	.250	Color Coded
	F	.250.	.500	.020 (#24AWG)	.250	Color Coded
ĺ	G	.350	.650	.025 (#22AWG)	.250	Stamped Capacity,
١.	H	.400	.750	.025 (#22AWG)	.250	Voltage & Tolerance

TIM AND TAC SERIES MOLDED SOLID TANTALUM CAPACITORS

TIM CASE SIZE X



TIM CASE SIZE Y



TIM SERIES

• -55°C to +85°C

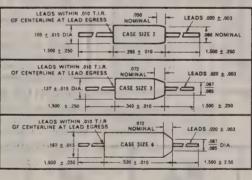
Ultra-miniature tantalum capacitors in molded epoxy case with tinned nickel radial leads, pre-gisely positioned for PC board mounting. High stability, long shelf life, excellent performance in severe environments. Uniform size for automatic assembly. Temperature Range: —55°C to +85°C. Tolerance: ±10%. Lead spacing: .200". Av. shpg. wt. 2 oz.

Ultra-miniature
Molded Epoxy Case
High Stability
Uniform Size
±10% Tolerance

Stock No.	Type TIM-	Cap., μF	DC	Code
852-6526	105K035P0X	1.0	35	A
	685K035P0Y	6.8	35	B
	106K035P0Y	10	35	C

High-reliability axial-lead capacitors in precision-molded epoxy case. Their uniform molded construction provides excellent per-formance in severe envi-ronments. Features include ronments. Features include highly stable electrical characteristics, exceptionally long shelf life, excellent environmental protection. Temperature Range: -55°C to +85°C. Tol.: ±10%. Av. shpg. wt.: 1/10 oz.

TAC SERIES CASE SIZES



TAC SERIES

Axial Lead Capacitor

Molded Epoxy Case

Stock No.	Type TAC-	Cap., μF		Case Code*	Stock No.	Type TAC-	Cap., μF		Case Code*
852-5424 852-5431 852-5394 852-5303 852-5349 852-5413 852-5427	106K006P02 566K006P04 685K010P02 396K010P04 105K202P02 225K020P02 564K035P02 684K035P02 125K035P03	10 56 6.8 39 1.0 2.2 .56 .68	6 10 10 20 20 35 35 35	2333222222	852-5374 852-5407 852-5451 852-5302 852-5345 852-5400 852-5408	224K050P02 474K050P02 105K050P03	3.3 4.7 8.2 .1 .22 .47 1.0 4.7	35 35 50 50 50 50	33333334

PRICE AND SIZE LOCATOR

	Price & Size			EACH			
Type	Code*	Tolerance	Size, Inches	1-9	10-24	25-49	50-Up
	Α.	±10%	.225 x .285 x .170	1.87	1.50	1.20	.83
TIM	B '1	±10%	.335 x .360 x .170	1.90	1.52	1.23	.85
	С	±10%	.335 x .360 x .170	3.62	2.89	2.32	1.59
	2	±10% ·	.105 dia. x .295	.90	.72	.61	.55
TAC	3	±10%	.137 dia. x .340	93		.63	.58
	4	+10%	187 dia y 530	1 01		.65	.61

ALLIED ELECTRONICS

Your one-stop source for all your electronic needs.

HIGH QUALITY HUGE SELECTION

LOW PRICES **FAST SERVICE**

Motor Capacitors and Capacitor Hardware

HERMETICALLY SEALED 370 VAC DYKANOL® CAPACITORS

- One-Piece Drawn Seamless Case
- Vinyl Painted Cases
- Minimum Leakage
- Welded Terminals



Motor-run capacitors designed for continuous duty with air conditioner motors, refrigerators, fans, blowers, business machines. Excellent for gencustiness macrines. Excellent for general purpose filtering, blocking power factor correction and similar applications. Meet National Electrical Manufacturers' Association Standards set for AC capacitors.



Cases are vinyl painted to fight corrosion and are recognized under Component Program of Underwriters' Laboratories, inc. Voltage rating: 370 VAC at 60 Hz. Operating temperature: -30° C to +55°C (maximum case temperature, +70°C). Capacitance tolerance: ±10%. All types have oval case. Size: 23%6" L x 1%6" W except Type KTX, 23%2 x 123%2. Heights shown in table. Av. wt. 2 lbs.

				Case		EACH	
Stock No.	Mfr's Type	Cap μF	Base	Ht. (in.)	1-	25- 99	100- Up
755-2145 755-2147 755-2149 755-2151 755-2176	KKX37P205Q KKX37P305Q KKX37P405Q KKX37P505Q KKX37P605Q	2 3 4 5 6	KK KK KK KK	2½16 2½16 2½16 2½2 2¾	2.80 3.03 4.10 3.65 4.08	1.88 2.03 2.73 2.44 2.73	1.60 1.72 2.32 2.08 2.32
755-2153 755-2207 755-2208 755-2210 755-2211	KKX37P755Q KTX37P106Q KTX37P156Q KTX37P206Q KTX37P256Q	7.5 10 15 20 25	KK KT KT KT KT	3¼ 2¾ 3½ 5¼ 6¾	4.83 5.45 7.90 9.90 7.35	3.23 3.65 5.28 6.62 6.25	2.75 3.10 4.49 5.63 5.64

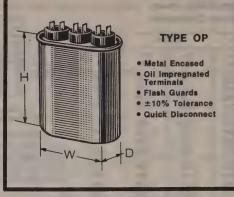
AB MOTOR STARTING CAPACITORS

Plastic encased. For use with 110/ 125 capacitor start AC motors. Two clip-on adapters with screws. Universal terminals. (*) 1%6 x 2%. (†) 113/6 x 33/8. 10 oz.



					EACH	
Stock No.	Mfr's Type	Cap. (μF) MinMax.	Horse- power	1-	10- 24	25- Up
926-0024°	AB-1213	108-130	1/4	1.55	1.14	1.03
926-0027°	AB-1216	124-149	1/4	1.60	1.17	1.06
926-0030°	AB-1219	130-156	1/4	1.72	1.24	1.13
925-0033°	AB-1222	145-175	1/3	1.78	1.27	1.16
926-0039°	AB-1128	189-227	1/2	2.35	1.88	1.34
926-0041*	AB-1230	200-240	1/2	2.25	1.55	1.40
926-0042+	AB-1231	216-259	1/2	2.25	1.55	1.40
926-0053†	AB-1242	324-388	3/4	2.97	2.15	1.93
926-0057+	AR-1246	378-440	1	3 17	1 20	1 70

MOTOR CAPACITORS



TYPE OF CONTINUOUS RUN

Type OP Continuous Run Motor Start Capacitors have been designed especially for motor run and fluorescent ballast applications. Outstanding features include metal cases for maximum environmental protection and quick-disconnect terminals with flash guards for easy access. Capacitors are impregnated with non-flammable, high quality oil. Capacitor tolerance: ±10%. Operating Temperature Range: -30°C to +70°C. Type OP has an oval case. Type OPR has a rectangular. Specify Stock Number, Type Number and Capacitance when ordering. Av. shpg. wt: 8 oz.

					EA	CH
Stock	Mfr's	Can	4.0	Size Inches	1-	10-
		Cap	AC			
No.	Type	(µF)	Volts	Wx1x C.	9	Up
852-4130	OP370	3	370	15/16X25/32X21/16	3.10	2.24
852-4132	OP470	4	370	15/16X25/32X29/18	3.10	2.24
852-4133	OP570	5	370	15/10X25/32X27/8	3.52	3.45
852-4135	OP670	6	370	15/16X25/32X11/8	3.88	3.51
852-4138	OP1070	10	370	25/32X227/32X31/32	5.11	4.60
852-4142	OP1570	15	370	25/32×227/32×45/32	15.66	13.06
852-4148	OP2070	20	370	25/32X227/32X421/32	9.40	8.69
852-4154	OP3070	30	370	131/32X212/32X53/4	13.18	11.77
852-4156	OP3570	35	370	131/32X321/32X61/4	14.05	12.24
852-4158	OP4070	40	370	131/32X321/32X71/4	15.80	12.61
852-4164	OP35D570A	35.5	370	131/32X321/32X71/4	15.83	14.24
852-4149	OP440	4	440	15/16X25/32X31/16	4.83	3.86
852-4174	OP1040	10	440	129/32x229/32x31/8	6.95	5.81
852-4182	OP3040	30	440	131/32X321/32X8	15.80	12.64
852-4171	OP4040	40	440	131/32x321/32x91/2	17.27	13.75
852-4205	OPR3540	35	440	227/32x43/16x53/16	16.05	12.79
852-4209	OPR4540	45	440	227/32x49/16x61/4	23.83	21.45

TYPE PSU Non-Polarized Round Cases • Moisture Resistant • Oil Resistant Quick Disconnect DIA-

TYPE PSU MOTOR START

Type PSU Motor Start Capacitors are non-polarized dry electrolytic capacitors expressly designed for intermittent duty in AC motor starting circuits. All capacitors listed are housed in round, molded plastic cases for above average oil and moisture resistance. Capacitor mounting is by way of two quick disconnect terminals mounted on the underside of the capacitor. Each capacitor is also supplied with two PSUA terminal adaptors for those applications requiring solder or screw type connection. May also be mounted by plastic end cap, metal snap-in bracket or clamp-bracket—not supplied. (See below for mounting hardware.) 8 oz.

Specify Stock Number, Manufacturer's Type Number and Capacitance when ordering.

				Size.	EA	CH
Stock No.	Mfr's Type	Cap μF	AC Volts	Inches Dia.xL.	1-	10- Up
852-4035 852-4037 852-4041 852-4043 852-4045 852-4047	PSU10815 PSU12415 PSU14515 PSU16115 PSU18915 PSU20015	108-130 124-149 145-175 161-193 189-227 200-240	110-125 110-125 110-125 110-125 110-125 110-125	17/16X23/4 17/16X23/4 17/16X23/4 17/16X23/4 17/16X33/8	1.57 1.53 1.63 1.87 2.20 2.27	1.15 1.09 1.29 1.32 1.53 1.57
852-4054 852-4054 852-4058 852-4064 852-4066 852-4068	PSU24315 PSU27015 PSU32415 PSU40015 PSU43015 PSU46015	243-292 270-324 324-388 400-480 430-516 460-552	110-125 110-125 110-125 110-125 110-125 110-125	113/16X3 % 113/16X3 3/8 113/16X3 3/8 113/16X3 3/8 21/16X4 3/6 21/16X4 3/6	2.65 2.75 3.00 4.15 4.25 4.37	1.92 1.93 2.20 2.34 2.90 3.05

A NOTE ON MOTOR START CAPACITORS

Motor start capacitors are in the circuit only during the starting period of the motor. When the motor reaches a predetermined speed capacitor is disconnected from circuit and motor runs as induction motor. Use next larger capacitor if unsure of proper size.

-CAPACITOR MOUNTING HARDWARE-

Selection of mounting hardware for capacitors subject to moderate or acute vibration. Hold capacitors securely in position. Straps are made of tinned steel. Others are cadmium plated steel.





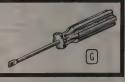




(Wt., 1 oz.)







A MOUNTING SOCKETS

For Mallory FP type capactors. Permit instant replacement. Molded from black bakelite. Recessed center contacts for extended prongs. Also take short prongs.

Stock	Mfr's	Size	ize EAC	ACH
No.	Type	In.	1-99	100-Up
750-0816	2C5	1 1	. 65	.42
750-0817	207	13/8	. 95	.61

B MOUNTING RINGS (Wt., 1 oz.)

		EACH			
Stock No.	Dia. Size (In.)	1- 99	100- 999	1000- Up	
852-7530 852-7532 852-7533 852-7535 852-7536 852-7538 852-7540	1-1/16 136-17/16 136-17/16 134-13/16 2-21/16 21/2-21/16	.53 .27 .57 .60 .68 .72	.42 .22 .45 .48 .54 .57	.30 .16 .32 .35 .39 .41	

C TUBULAR STRAPS

				EACI	1
Stock	Mfr's	Dia.	1-	100-	1000
No.	Type	Size (In.)	99	999	Up
755-9025	16285	11/16	.11	.07	.05
755-9066	17517	3/4	.11	.07	.05
755-9118	27950	1	.38	.26	.22
755-9065	17673-1	13/8	.18	.12	.10

DUNIVERSAL CLAMPS (Wt., 1 oz.)

		EACH				
Stock No.	Dia. Size (In.)	1- 99	100- 999	1000- Up		
852-6010	3/8-7/18	.15	.10	.08		
852-6012	1/2-3/16	.15	.10	.08		
852-6014	5/8-11/18	.15	.10	.08		
852-6016	3/4-13/10	.15	.10	.08		
852-6018	7/8-15/18	.15	.10	.08		
852-6020	1-11/16	.15	.10	.08		
852-6022	1%-1	.15	.10	.08		
852-6021	134-17/11	.22	.18	.13		

E MOUNTING PLATES

Standard mounting plates for mounting "Twist-Prong" capacitors. * Phenolic. † Metal. Av. shpg. wt. 1 oz.

•	Stock	Size	Stock	Size
	No.	In.	No.	In.
	852-0305 852-0307	1%*	852-2440 852-2442	1† 1%†

1-99 Ea. .16 100-999 Ea. .12 1000-Up Ea. .10

F "C" CLAMPS

			EACH				
Stock No.	Mfg. No.	Dia. Size (In.)	1- 99	100- 999	1000- Up		
755-9084	17920	. 5/2-3/4	.18	.12	.10		
755-9085	17921	7/4-1	18	12	10		

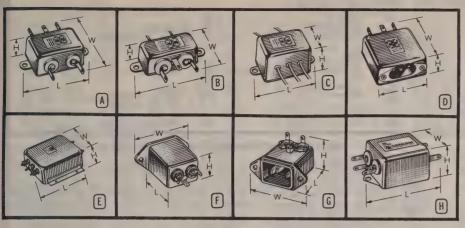
G MOUNTING WRENCH

ATTENTION PURCHASING AGENTS

PURCHASING AGENTS
Make Allied your one stop headquarters for all your industrial
needs. Pay OEM factory prices,
slash handling expenses and reduce paperwork in purchasing and
receiving. You place one order, receive one shipment and make one
disbursement. Depend on Allied
for prompt, same-day delivery.

RFI Power Line Filters

FOR COMPUTER, CONTROL, DATA PROCESSING, INSTRUMENTATION



SERIES B FILTERS (See Schematic) TWO "L" SECTIONS-1 TO 30 AMPS; 115/230 VOLTS, 60 HZ AC

B series RFI power line filters are the most popular units in the entire line. They are general purpose filters, effectively providing RFI control of line-to-ground noise—in a small size, at lowest cost. These filters are designed to meet a wide variety of applications and are available in a broad selection of current ratings and termination styles.

				Size	Max.			EA	СН	
Stock No.	Mfr's Type	Fig.	Case Style	LxWxH Inches	Line Current	DC Ohms	1- 24	25- 49	50- 99	100- Up
754-0206 754-0209 754-0212	1B1 1B2 1B3	A B C	B1 B2 B3	2.50x2.25x .650 2.50x1.56x .650 2.50x .94x .650	1 amp 1 amp 1 amp	.15 .15 .15	7.63 7.75 7.90	6.10 6.20 6.32	4.67 4.75 4.84	4.08 4.16 4.24
754-0215 754-0230 754-0233	1B4 2B1 2B2	D A B	B4 B1 B2	2.00x2.50x .750 2.50x2.25x .650 2.50x1.56x .650	1 amp 2 amp 2 amp	.15 .04 .04	8.75 6.90 6.98	7.00 5.52 5.58	5.37 4.23 4.28	4.70 3.70 3.75
754-0236 764-0239 754-0245 754-0248	2B3 2B4 3B1 3B2	C D A B	B3 B4 B1 B2	2.50x .94x .650 2.00x2.50x .750 2.50x2.60x .750 2.50x1.94x .750	2 amp 2 amp 3 amp	.04 .04 .08	7.05 7.90 7.90 8.05	5.64 6.32 6.32 6.44	4.31 4.84 4.84 4.93	3.78 4.24 4.24
754-0252 754-0255	3B3 3B4	C D	B3 B4	2.50x1.31x .750 2.00x2.75x .750	3 amp 3 amp 3 amp	.08 .08	8.33 9.05	6.66 7.24	5.11 5.55	4.31 4.47 4.85
754-0261 754-0264 754-0267 754-0270 754-0276	5B1 5B2 5B3 5B4 10B1	A B C D A	B1 B2 B3 B4 B1	2.50x2.60x .750 2.50x1.94x .750 2.50x1.31x .750 2.00x2.75x .750 2.50x2.60x1.13	5 amp 5 amp 5 amp 5 amp 10 amp	.02 .02 .02 .02 .015	7.05 7.28 7.48 8.20 7.75	5.64 5.82 5.98 6.56 6.20	4.31 4.45 4.58 5.02 4.75	3.77 3.90 4.00 4.39 4.16
754-0279 754-0282 754-0285	10B2 10B3 10B4	C D	B2 B3 B4	2.50x1.94x1.13 2.50x1.31x1.13 2.00x2.75x1.13	10 amp 10 amp 10 amp	.015 .015 .015	7.90 8.05 8.93	6.32 6.44 7.14	4.84 4.93 5.46	4.24 4.31 4.77
754-0289 754-0301 754-0306 754-0406	10B6 20B1 20B6 30B6	EAEE	B6 B1 B6 B6	2.50x2.57x1.13 2.78x3.35x1.13 2.78x3.38x1.13 4.12x5.13x1.50	10 amp 20 amp 20 amp 30 amp	.015 .01 .01	9.05 12.80 14.38 20.00	7.24 10.24 11.50 17.86	5.76 7.95 8.94 15.93	5.06 6.97 7.89 13.95

SERIES EF INTERNATIONAL FILTERS (See Schematic) 1 TO 6 AMPS; 115-230 VOLTS, 50-60 HZ AC

The EF International series of RFI power line filters incorporates the special IEC (International Electrotechnical Commission) power line connector. This connector has 4mm minimum pin spacing and complies with all current and proposed requirements for use with industrial and test equipment in the European development of the equipment of the equ pean market where a detachable power cord is part of the equipment design. The EF series features extremely low leakage current; meets IEC, BSI, VDE, CSA and ASA requirements for data processing equipment.

				Size	Max.			EA	СН	
Stock No.	Mfr's Type	Fig.	Case Style	LxWxH Inches	Line Current	Ohms	1- 24	25- 49	50- 99	100- Up
754-0219	1EF1	F	E1	1.97x1.97x .79	1 amp	.07	14.63	11.70	7.80	7.30
754-0253	3EF1	F.	E1	1.97x1.97x .79	3 amp	.05	13.50	10.80	7.30	6.75
754-0274	6EF1	F	E1	1.97x1.97x .79	6 amp	.03	12.38	9.90	6.60	6.20
754-0254	3EF2	Ġ	E2	1.97x1.55x1.31	3 amp	.05	13.50	10.80	7.30	6.75
754-0275	6EF2	Ğ	E2	1.97x1.55x1.31	6 amp	.03	12.38	9.90	6.60	6.20

3-CONDUCTOR LINE CORDS

Type 80-1255. Mates with 'B' Series filters. 754-0855. 1-24	
Type 80-1245. Mates with EF International 754-0845. 1-24Each 4.46	filters. 25-Up Each 3.76



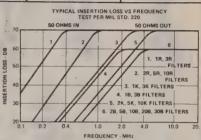
ENGINEERING NOTE

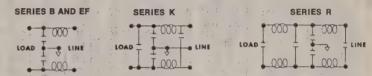
Contact Allied Electronics for other available case types and current capacities. We can supply most of your filter requirements.

GENERAL ELECTRICAL SPECIFICATIONS

RATED VOLTAGE	B, K & R SERIES 115-230V	EF SERIES 115-230V
MAXIMUM LEAKAGE CURRENT, EACH LINE TO GROUND 115 VAC/60 Hz	0.5 mA	0.25 mA
CAPACITANCE, LINE TO GROUND	10,000 pF	5000 pF
OPERATING FREQUENCY	50-400 Hz	50-400 Hz
HIGH POT TEST	2100 VDC	2100 VDC

This graph illustrates typical in-sertion loss vs. frequency test per MIL-STD 220. Note the high levels of insertion loss pro-vided by these filters.





SERIES K FILTERS WITH LINE-TO-LINE CAPACITORS 1 TO 30 AMPS; 115/230 VOLTS, 60 HZ AC

The K series RFI power line filters is similar to B series at left; they have the added feature of being extremely effective in the control of line-to-line as well as line-to-ground RF interference. Particutarly suited where pulsed, continuous and/or intermittent RF interference is present in your application. They should be used where line-to-line interference protection is required for your equip-

				Size	Max.			EA	CH	
Stock No.	Mfr's Type	Fig.	Case Style	LxWxH Inches	Line Current	DC Ohms	1- 24	25- 49	50- 99	100- Up
754-1001 754-1010 754-1015	1K1 1K3 1K4	A C D	K1 K3 K4	2.78x3.13x .875 2.78x1.81x .875 2.00x2.75x .875	1 amp 1 amp	.15 .15 .15	9.55 9.70 10.55	7.64 7.76 8.44	5.24 5.40 5.88	4.71 4.85 5.27
754-1015 754-1025 754-1035 754-1040	2K1 2K3 2K4	ACD	K1 K3 K4	2.78x3.13x .875 2.78x1.81x .875 2.00x2.75x .875	1 amp 2 amp 2 amp 2 amp	.04 .04 .04	8.73 8.85 9.70	6.98 7.08 7.76	4.84 4.92 5.40	4.36 4.43 4.85
754-1050 754-1060 754-1065	3K1 3K3 3K4	A. C	K1 K3 K4	2.78x3.13x1.13 2.78x1.81x1.13 2.00x2.75x1.13	3 amp 3 amp 3 amp	.08 .08	9.70 10.13 10.83	7.76 8.10 8.66	5.40 5.64 6.04	4.85 5.06 5.41
754-1075 754-1080 754-1082	5K1 5K3 5K4	ACD	K1 K3 K4	2.78x3.13x1.13 2.78x1.81x1.13 2.00x2.75x1.13	5 amp 5 amp 5 amp	.02 .02 .02	8.85 9.28 9.98	7.08 7.42 7.98	4.92 5.16 5.56	4.43 4.64 4.99
754-1087 754-1092 754-1095 754-2080	10K1 10K3 10K6 20K1	A C E A	K1 K3 K6 K1	2.78x3.38x1.13 2.78x2.06x1.13 2.78x3.25x1.13 3.32x3.38x1.50	10 amp 10 amp 10 amp 20 amp	.015 .015 .015	9.68 9.85 12.20 14.70	7.74 7.88 8.96 11.76	5.32 5.48 6.24 8.23	4.78 4.92 5.60 7.34
754-2091	30K6	E	K6	4.12x5.13x1.50	30 amp		21.00	17.24	15.46	13.68

SERIES R FILTERS (See Schematic) TWO "T" SECTIONS-1 TO 10 AMPS; 115/230 VOLTS. 50-60 HZ AC

The R series RFI filters incorporate two T sections and provide premium performance at reasonable cost. Designed to meet high attenuation at low frequencies. The 1- and 3-amp versions have an insertion loss as low as 45 dB at 150 kHz. These dual-section filters provide positive RFI control of line-to-line as well as line-to-ground noise. Small in size, designed for computer peripheral and a wide variety of other critical applications. *Case style R3 has wire/wire terminations.

				Size			EACH			
Stock No.	Mfr's Type	Fig.	Case Style	LxWxH Inches	Line Current	DC Ohms	1- 24	25- 49	50- 99	100- Up
754-2001 754-2010 754-2015 754-2025 754-2030 754-2040	1R1 1R3 2R1 2R3 3R1 3R3	H H H H H	R1 R3° R1 R3° R1 R3°	3.38x1.75x1.13 2.75x1.75x1.13 3.38x1.75x1.13 2.75x1.75x1.13 3.88x2.00x1.13 3.32x2.00x1.13	1 amp 1 amp 2 amp 2 amp 3 amp 3 amp	.30 .30 .08 .08 .16	13.43 13.58 14.45	11.32 11.56 10.74 10.86 11.56 11.90	8.80 8.18 8.27 8.80	7.55 7.70 6.14 7.25 7.70 7.93
754-2045 754-2055 754-2060 754-2070 754-2075	5R1 5R3 10R1 10R3 10R6	HHHH	R1 R3* R1 R3* R6	3.88x2.00x1.13 3.32x2.00x1.13 3.88x2.00x1.50 3.32x2.00x1.50 2.00x3.80x1.50	5 amp 5 amp 10 amp 10 amp 10 amp	.04 .04 .03 .03	14.00 14.30 14.58	10.86 11.20 11.42 11.66 10.85	8.54 8.71 8.89	7.24 7.47 7.62 7.78 8.44

Miniature and Subminiature Toggle Switches

		SWITCH INDEX
Illuminated Arrow-Hart Cutler-Hammer Switchcraft	136	Multi Switch Rocker and Paddle Lever Switchcraft 138 Switchcraft 136 Allied 138 Cutler-Hammer 138 Snap-Action Power Tap Ohmite 139 Switchcraft 138 Cutler-Hammer 142 Cutler-Hammer 142
Miniature, Subminiature	130 130 135	Printed Circuit
Multipole T-Bar	137	Ind.: Arrow-Hart 131



with Cap









LFH Series

SPDT-3 TERMINALS *Momentary pos

MPC

		Replaces		EACH					
Stock No.	Mfr's Type	ALCO Type	Action	1- 24	25- 99	100- 249	250- Up		
826-1351 826-1353 826-1356 826-1357	JMT-121 JMT-123 JMT-126 JMT-127	MST-105F	On-None-On On-None-On*	2.27 1.87 2.27 2.45	1.82 1.50 1.82 1.96	1.29 1.06 1.29 1.39	1.12 .93 1.12 1.21		
826-1361 826-2501 826-2503 826-4811 826-4813	JMT-131 MPC-121 MPC-123 T02-121 T02-123	MST-105H	On-Off-On* On-Off-On On-None-On On-Off-On On-None-On	2.45 2.45 2.45 2.45 2.45 2.45	1.96 1.96 1.96 1.96 1.96	1.39 1.39 1.39 1.39 1.39	1.21 1.21 1.21 1.21 1.21		

	3-POL	E DT-9 TERM	/IINALS *Mome	entary p	os.	
826-1421 826-1423 826-1427	JMT-323	MST-305D	On-Off-On On-None-On On*-Off-On*	4.50	3.96 3.60 4.10	2.45 2.23 2.54

		4-POLE DT	-12 TERMINAL	LS .	1	P + 1, 1	19.
826-1451 826-1453 826-1462	JMT-421 JMT-423 JMT-432		On-None-On	6.35 5.65 7.00	5.08 4.52 5.60	3.60 3.20 3.97	3.14 2.80 3.47

ALLIED® SUBMINIATURE TOGGLE SWITCHES

JMT Series. For manual control, solid-state devices and miniature circuits. Single pole types are $\frac{1}{2}$ " thin, double pole less than $\frac{1}{2}$ " square, three and four-pole also small. Single hole mounting, $\frac{1}{2}$ " threaded bushing. Nominal rating: 5 amps, 125 VAC or 24 VDC. Initial contact resistance: 5 milliohms. Insulation resistance: 10,000 megohms. Life under load: 100,000 make/break cycles. Bat handles have 30° throw. Silver contacts. LFH Series. Subminiature switches with flat handles for easy grasp and good sensing in direction of throw.

MPC Series. Subminiature switches for direct insertion in PC boards. Terminals are gold plate over nickel.

T02 Series. Right-angle mounting switches rated 0.5 watts at 25 volts AC/DC. All types include mounting hardware. Average shipping weight, 1 oz.

DPDT-6 TERMINALS *Momentary pos.

			Replaces		EACH				
Stoc No.		Mfr's Type	Type	Action	1-24	25- 99	100- 249	250- Up	
826-1; 826-1; 826-1; 826-1;	383 386	JMT-221 JMT-223 JMT-226 JMT-227	MST-205N	On-Off-On On-None-On On-None-On* On*-Off-On*	2.95 2.50 2.95 3.17	2.36 2.00 2.36 2.54	1.67 1.42 1.67 1.80	1.46 1.24 1.46 1.57	
826-13 826-13 826-24 826-21	392 414	JMT-231 JMT-232 LFH-221 MPC-223		On-Off-On* On-On-On On-Off-On On-None-On	3.17 3.32 3.25 2.20	2.54 2.66 2.62 1.68	1.80 1.88 2.17 1.36	1.57 1.64 1.93 1.27	

COLOR CODED CAPS FOR JMT SERIES

Add suffix 0 through 9 to replace X in Stock No., to indicate color desired. 0-black; 1-brown; 2-red; 3-orange: 4-yellow; 5-green; 6-blue; 7-violet;

826-134X. Pkg.	of 10 per color. 1-3 Pkg	s
4-19 Pkgs	Each .25	20-39 Pkgs



SUBMINIATURE TOGGLE SWITCHES

Gold-plated silver contacts; gold plated brass terminals; diallyl phthalate bases. Rated 5A resistive @ 29VDC/115VAC; meets MIL-S-3950. MS-75028, SPDT; MS-75029, DPDT. *asterisk in Action column signifies momentary action. Shpg. wt. 1 oz.

Stock No.	Mfr's Type	Mil Spec. No.	Circuit	Action	EACH
717-0075 717-0090 717-0086 717-0083 717-0080 717-0095	TC-3M TS-3M TG-3M TE-3M TC-6M TS-6M	75028-21 75028-23 75028-27 75028-31 75029-21 75029-23	SPDT SPDT SPDT DPDT	On-Off-On On-None-On On*-Off-On* On*-Off-On On-Off-On On-None-On	5.50 6.20 5.85 7.50 7.07 7.07

STANDARD SMALL LEVER SWITCHES

1/4-40 bushing. Solder lug term. Rated 5 A @ 125 VAC or 28 VDC except On-On, 10 A. (*) Momentary.

					EACH	
	Stock No.	Mfr's Type	Action	1- 9	10- 24	25- Up
		ON	E POLE			
40 HD	757-0246 757-0252	SF1SBX191 SF1SCY191	On-Off-On On-On	1.87 1.60	1.78 1.52	1.19
		TW	O POLE			



INKEE POLE									
757-0248	SF3SBX191	On-Off-On	3.97	3.78	2.53				
757-0255	SF3SBX191 SF3SCY191	On-On	3.73	3.55	2.38				

757-0249 SF4SBX191 On-Off-On 5.15 4.90 3.28 757-0257 SF4SCY191 On-On 4.68 4.45 2.98

FLATTED LEVER SWITCHES

On-On rated 10A @ 125 VAC; On-Off-On 5A. 14-40 bshg.; solder lug terminals.

ORE PULE								
757-0242	SF1SBX195 SF1SCY195	On-Off-On	2.73	2.61	1.75			
737-0243	31 130 1133	011-011	2.7/	2.00	1.50			
TWO POLE								

		O POLE			
757-0244 S	SF2SBX195	On-Off-On	3.34	3.18	2.13
757-0245 S	SF2SCY195	On-On	2.95	2.81	1.88

ULTRAMINIATURE TOGGLE SWITCHES WITH SOLDER TERMINALS

Rated 3 A @ 125 VAC or 28 VDC. 1/4-40 bushing. Approximately half behind-panel size of miniature switches.

		ON	E POLE			
260				-	EACH	
413 205 4 THD	Stock No.	Mfr's Type	Action	1- 9	10- 24	25- Up
583		SF11SBT191 SF11SCT191			1.78 1.52	1.19
TWO POLE						
413		SF12SBT191		2.47	2.35	1.58

ULTRAMINIATURE TOGGLE SWITCHES WITH PRINTED CIRCUIT TERMINALS

3A @ 125 VAC or 28 VDC. 1/4-40 bshg. About half behind-panel space of miniature switches.



WATERTIGHT SMALL LEVER SWITCHES

Sealed to withstand a 3.3 ft. head of water for 15 minutes On-Off-On rated 5 A @ 125 VAC, On-On 10 A @ 125 VAC Solder lug terminals.

10-24

7/8	Stock	Mfr's	Action
THD.	No.	Type SF1WBX191	On-Off-(
	757-0287	SF1WCY191	On-On
72			O POLE
1/2 + 1732	757-0282 757-0288	SF2WBX191 SF2WCY191	On-Off- On-On

LARGE BUSHING AND LEVER SWITCHES

On-On rated 10A, On-Off-On 5A @ 125 VAC. 15/32-32 bshg.;



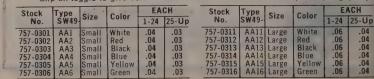
On-On rated 10A @ 125 VAC, On-Off-On 5A. 1/4-40 bshg.; solder lug terminals. ONE POLE

757-0219 \$F15CY196 [0n-0ff-0n 1.89 1.78 1.19 757-0220 \$F15CY196 [0n-0n 1.60 1.52 1.02 TWO POLE

757-0230 SF2SBX196 On-Off-On 757-0231 SF2SCY196 On-On 2.47 2.35 1.58 2.08 1.98 1.33

ACCESSORY TOGGLE LEVER CAPS

Slip on toggle to give color-coordinated lever. Small lever are plastic; large, vinyl.





Toggle Switches

MTL SERIES LEVER-LOCKING

Self-locking lever cannot be accidentally shifted. To actuate switch, the spring-loaded mechanism must be released by pulling out on the toggle. Turret terminals: voltage barriers inside and out. Rated 6 A at 125 VAC resistive, 3 amps at 250 VAC, 4 amps at 28 VDC. ¼ "-40 bushing. 2 oz.



Stock No.	Mfr's			EA	CH	
	Type	Action	1-	10- 24	25- 49	50- Up
652-0400	MTL-106D	SPDT On-None-On	3.48	3.15	2.14	1.89

MCT, MCTG CYLINDRICAL TOGGLE

Miniature all-metal cylindrical case with hi-impact insulation. Rated 10 A at 125 VAC, 5 A at 250 VAC. Contact resistance: under 20 milliohms at 2-4 VDC, 1 amp. Solid silver contacts; silverplated brass term. MCT types have 1/4" bushing; MCTG types 1/52". 1 oz.



652-0300 MCT-110D	SPDT On-None-On 2.13	1.95 1.33	1.17
652-0301 MCT-210N	DPDT On-None-On 2.80	2.55 1.72	1.53
652-0302 MCTG-110D	SPDT On-None-On 2.13 DPDT On-None-On 2.80	1.95 1.33	1.17
652-0303[MCTG-210N	DPDT On-None-On 2.80	2.55 1.72	1.53

COLOR CAPS AND NUTS FOR TOGGLE SWITCHES











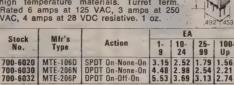
To	indicat	e color	desired	(of pla	astic ca	ap), inser	color
nur	nber in	place o	of "X" in	Stock	No. R	ed-2; Yel	low-4;
Gre	en-5;	Blue-6;	White-	9; Blac	ck-0. 2	oz.	

Stock	Mfr's		Pac	kage o	f 25
No.	Type		1- 24	25- 49	50- Up
652-002X 652-0052 652-0053 652-0054 652-0055		Round Cap ¼"-40 Standard Knurl Nut ¼"-40 Perfect Fit Chrome Nut ¼"-40 Standard Hex Nut Decorative Mtg. Nut	1.88 2.50 1.25	1.50 1.50 2.00 1.00 2.00	1.10 1.50 .75

MINIATURE TOGGLE SWITCHES

MTE WATERPROOF

Standard 152" hole mounting, but with rear space requirement of a miniature switch. Case construction of low loss, high impact, high temperature materials. Turret term. Rated 6 amps at 125 VAC, 3 amps at 250 VAC, 4 amps at 28 VDC resistive. 1 oz.



Plastic case. Low loss, high temperature coefficient. Bonded solid-silver contacts rated 6 amps at 125 VAC, 3 amps at 250 VAC, 4 amps at 28 VDC resistive. "No-tear" shoulder on bottom of bushing. Pin terminals. Barriers. 1/4"-40 bushing. 1 oz.





MTG "MUSTANG" SERIES

Standard 15½" hole mounting, but with rear 45 space requirement of a miniature switch. Case construction of low loss, high impact, 652 high temperature materials. Turret term. Rated 6 amps at 125 VAC, 3 amps at 250 VAC, 4 VAC, 4 amps at 28 VDC resistive. 1 oz.

Stock Mfr's Action 1- 10- 25- 100-							
No. Type 9 24 99 Up 700-6080 MTG-106D SPDT On-None-On 3.38 2.70 1.92 1.67 700-6384 MTG-206N DPDT On-None-On 4.72 3.16 2.68 2.34 700-6386 MTG-206PA DP3T On-On-On 6.12 4.09 3.47 3.03					EA	CH	
700-6384 MTG-206N DPDT On-None-On 4.72 3.16 2.68 2.34 700-6386 MTG-206PA DP3T On-On-On 6.12 4.09 3.47 3.03			Action	1-9	10- 24	25- 99	100- Up
	700-6384 700-6386	MTG-206N MTG-206PA	DPDT On-None-On DP3T On-On-On	4.72 6.12	3.16 4.09	2.68 3.47	2.34 3.03

MST ULTRAMINIATURE TOGGLE

- 5 Amp Contact Rating
- Solid Silver Contacts

Rt.-Angle PC Mount

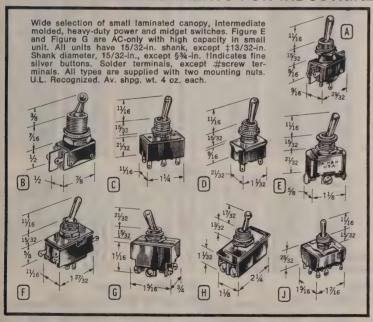
Ultra-small toggle switch combines high current capacity and long life. Small case is ideal for miniaturized equipment with front and rear space limitations. Rated 5 amps at 115 VAC or 28 VDC. Initial contact resistance: below 20 milliohms at 2-4 VDC, 1 amp. Solid silver contacts and terminals below 20 milliohms at 2-4 VDC, 1 amp. Solid silver contacts and terminals (center term. copper with silver plate). 1/4 "-40 bushing with keyway. Well spaced terminals for easy soldering. *Momentary contact. tis PC right-angle mounting type with non-threaded bushing; gold plated brass contacts, terminals. ‡has flatted toggle.



TOGGLE **SWITCHES**

	,,,,,,,		- 2	HtAn	gie P	C Mt.
Stock	Mfr's			EA	CH	
No.	Type	Action	1-	10-	25-	100-
			9	24	99	Up
652-0500	105D	SPDT On-None-On	1.60	1.45	1.09	.87
700-5772	105D49‡	SPDT On-None-On	3.15	2.25	1.53	1.35
652-0502	105DPCt	SPDT On-None-On	2.35	1.80	1.45	1.22
652-0503	105E	SPDT On-Off-On SPDT None-On-On*	1.90	1.75	1.31	1.05
652-0504	105F			_		
652-0505	105G	SPDT On*-Off-On*	1.90	1.75	1.31	1.05
652-0506	105H	SPDT On-Off-On°	1.90	1.75	1.31	1.05
652-0507	205N	DPDT On-None-On	2.13	1.95	1.46	1.17
652-0508	205NPC1	DPDT On-None-On	2.88	2.30	1.81	1.52
652-0509	205P	DPDT On-Off-On	2.50	2.35	1.76	1.41
652-0510	205PA	DP3T On-On-On	2.75	2.65	1.99	1.59
652-0511	205R	DPDT None-On-On*	2.50	2.35	1.76	1.41
652-0512	205S	DPDT On*-Off-On*	2.50	2.35	1.76	1.41
652-0513	205T	DPDT On-Off-On*	2.50	2.35	1.76	1.41
652-0514	305D	3PDT On-None-On	3.63	3.45	2.59	2.32
652-0515	305E	3PDT On-Off-On	3.90	3.75	2.81	2.51
652-0516	405N	4PDT On-Off-On	4.63	4.35	3.26	2.92
652-0517	405P	4PDT On-None-On	5.03	4.85	3.64	3.25

SWITCHES OFFERING A WIDE RANGE OF POWER RATINGS AND CONTACT ARRANGEMENTS FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS



DPDT (3-POSITION-ON-POSITIVE OFF-ON)

Not Illus. Cannot move through center position without stopping

		Amp	eres		Wining	Silver-	Plated		EA	CH	
Stock No.	Mfr's Type	125V	1	hp	Action	Con- tacts	Terms	1- 24	25- 99	100- 499	500- Up
717-0454	#80638D§‡	10	5	3/4	Yes	Yes	No	7.48	5.27	4.42	3.98

J 3 AND 4-POLE AC SWITCHES

Designed for heavy-duty appliances, motors and small motor controls. For AC applications only. Figure J above, except *, not illustrated.

Stock	Mfr's		Ar	np		EACH			
No.	Type	Action	at 125 VAC	250 VAC	25- 49	50- 99	100- Up		
717-0552 717-0555 717-0557 717-0565	82612 82615 82617 *82636	3PST (On-Off) 3PDT (On-Off-On) 3PDT (On-None-On) 4PDT (On-None-On)	15 15 15 15	10 10 10	3.21 3.39 3.40 5.08	2.27 2.41 2.41 3.60	1.99 2.10 2.10 3.14		

SPST (2-POSITION-ON-OFF) *Momentary

041	106-1-	,	mper	ac			Silver	-Plated		EA	CH	
Stock No.	Mfr's Type	-	·	250V		Wiping Action	Contac	ts Terms	1- 24	25- 99	100- 499	500- Up
717-0330 717-0320 717-0325 717-0465 717-0472	20994LH ‡20994BF 20994CS 81015AW *81045FB	ABBCC	6	3 3 3 3 3		No No No Yes Yes	No No No Yes Yes	No No No No No	1.36 1.36 1.36 1.69 2.68	.99 .99 .99 1.08 1.69	.76 .76 .76 1.00 1.52	.69 .69 .69 .90
717-0616 717-0601 717-0520 717-0523	83050 83001 #82600 82601	D E E	3 6 15 15	1 . 3 10 10	1/8 3/4 3/4	Yes No No No	Yes Yes Yes† Yes†	Yes No No No	1.69 1.17 1.53 1.34	1.15 .74 1.07 .91	.82 .68 .74 .65	.71 .48 .63 .55

	SP	DT ((2-P	OSI	TION	 0	N-ON	i) *M	omenta	ry		
717-0340 717-0335 717-0467 717-0473	21350EH 21350BF 81021AV *81051G	A B C C	3 3 6 6	1 1 1		No No Yes Yes	No No Yes Yes	No No No	1.72 1.72 2.02 2.93	1.17 1.17 1.29 1.87	.95 .95 1.19 1.72	.86 .86 1.08 1.45
717-0618 717-0607 717-0532	83052 83007 #82604	DE	3 6 15	1 3 10	1/6 3/4	Yes No No	Yes Yes Yest	Yes No No	2.02 1.24 1.84	1.37 .87 1. 25	.98 .73 .88	.85 .66 .77

		SP	DT ((3-P	OSIT	TION	-ON	-OFF	-ON)			
717-0510 717-0604 717-0526 717-0529	82022HD 83004 #82602 82603	FEE	6 6 15 15	3 3 10 10	1/6 3/4 3/4	Yes No No No	Yes Yes Yest Yest	No No No No	3.27 1.24 1.84 1.53	2.30 .87 1.25 1.07	1.93 .73 .88 .74	1.74 .66 .77 .63

		DPST	(2-F	POSI	TIOI	N	ON-C)FF)	*Mome	ntary	N.O.		
*	717-0302	20902CX	A	3	1		No	No	No	2.48	1.80	1.37	1.24
	717-0469	81024GB	C	6	3 .		Yes	Yes	No	2.51	1.77	1.48	1.34
	717-0475	*81054H	C	6	3		Yes	Yes	No	3.51	2.08	1.98	1.79
	717-0619	83053	D	3	1 1 .		Yes	Yes	Yes	2.51	1.71	1.21	1.06
	717-0440	#80600B	H	16	8	1 .	Yes	Yes	Yes	2.57	1.82	1.45	1.31
ľ	717-0442	#80602C	Н	20	10	11/2	Yes	Yes	Yes	4.49	3.15	2.65	2.39
	717-0417	#80421	H		20	11/2	Yes	Yes	Yes	6.03	4.10	2.91	2.54
	717-0610	83025	G	6	3	1/6	No	Yes	No	1.69	1.15	.82	.71
	717-0538	#82606	G	15	10	3/4	No	Yest	No	2.46	1.68	1.19	1.04
	717-0540	82607	G	15	10	3/4	No	Yest	No	2.08	1.41	1.00	.87

	DP	וט ((2-P	051	HOL	IU	N-ON) "MO	menta	ry		
717-0315	20905FR	Α	3	1		No	No	No	2.84	1.93	1.67	L.19
717-0310	20905BX	В	3	1		No	No	No	2.84	1.93	1.67	1.19
717-0471	81027CE	C.	6	. 3		Yes	Yes	No	2.88	1.84	1.70	1.53
717-0477	*81057N	C.	6	3		Yes	Yes	No	4.74	2.97	2.50	2.25
717-0620	83054	D	3	1		Yes	Yes	Yes	2.88	1.96	1.39	1.21
717-0614	83031	G	6	3	1/6	No	Yes	No	1.89	1.31	1.11	1.00
717-0550	#82610	G	15	10	3/4	No	Yest	No	3.04	2.07	1.46	1.28
717-0551	82611	G	15	10	3/4	No	Yest	No	2.46	1.68	1.19	1.04

		DP	DT	(3-P	OSI	TION	-ON	-OFF	-ON)			
717-0514 717-0612 717-0544 717-0541	82024HD 83028 #82608 82609	FGGG	6 15 15	3 10 10	3/4 3/4 3/4	Yes No No No	Yes Yes Yest Yest	No No No No	4.03 1.89 3.04 2.46	2.82 1.31 2.07 1.68	2.00 1.11 1.46 1.19	1.74 1.00 1.28 1.04

AC RATED TOGGLE SWITCHES

"SUPER" SWITCH

"Super" toggle switch with DAP body. Rated 125 VAC, 30 Amps. 2 hex nuts and one internal tooth lock-

washer supplied.
L in type number—
solder lug terminals; S=screw terminals. 221:On-Off-On, DPDT. 222:
On-None-Off, SPST. 223: On-None-On, SPDT.

Fast make-and-break type. Rated 30A at 125 VAC/DC, 20A at 250 VAC/DC. Normal life under load well in excess of 50,000 make and break cycles. 222: Off-None-Off, SPST. 229: On-None-On-286. On-None-On-286. On-None-On-286. 226: On-None-On, None-On, SPDT.



3PDT. 223: On-

Stock	Mfr's	EACH						
No.	Туре	1-4	5-9	10-Up				
826-1101	30P5221L	2.05	1.64	1.16				
826-1102	30P5222L	1.77	1.42	1.01				
826-1103	30P5223L	2.05	1.64	1.16				
826-1104	30P5221S	2.12	1.70	1.20				
826-1105	30P5222S	1.87	1.50	1.06				
826-1106	30P5223S	2.12	1.70	1.20				

Stock	Mfr's	EACH						
No.	Type	1-4	5-9	10-Up				
826-2322	4222S	1.50	1.22	.81				
826-2329	4229S	1.77	1.42	1.01				
826-2330	4230S	11.77	1.42	1.01				
826-2323	4223S	1.77	1.42	1.01				
826-2321	4221S	1.77	1.42	1,01				
826-2326	4226S	2.00	1.60	1.13				

8320K1 2-pole 3-pole 4-pole

Slow-make, slow-break rocker style contact mechanism with long mechanical life. Spade terminals, ¼" wide. Mounting hardware included. U.L. and C.S.A. listed. One and two pole switches have 9/16" lever; three and four pole, 11/16" lever. *Indicates momentary contact in "on" position. Shpg. wt. 2 oz.

Stock	Mfr's		Amp	s @	Bushing	Termi-	- EACH			
No.	Туре	Circuit		250V		nals	1-9	10-49		100-Up
757-4886 757-4885 757-4888 757-4887 757-4889	7580K5 7580K4 7580K7 7580K6 7580K8	On-Off On-Off On-Off On-Off On-Off	66666	33333	11/32" 15/32" 11/32" 11/32" 15/32"	Screw Screw Solder Solder Spade	1.34 1.34 1.16 1.16 1.16	.83 .83 .72 .72 .72	.76 .76 .66 .66	.65 .65 .55 .55
757-4000 757-4001 757-4020 757-4021 757-4022	7500K13 7500K14 7501K12 7501K13 7501K15	On-Off On-Off	15 15 15 15	10 10 10 10	11/32" 15/32" 11/32" 15/32" 15/32"	Screw Screw Solder Solder Spade	1.53 1.53 1.34 1.34 1.34	.96 .96 .83 .83	.87 .87 .76 .76	.74 .74 .65 .65
757-4254 757-4253 757-4924 757-4926 757-4200	*7506K4 *7506K3 7582K4 7582K6 7504K3	*On-Off *On-Off On-On On-On On-On	6 6 15	10 10 3 3	15/32" 15/32" 15/32" 15/32" 11/32"	Screw Solder Screw Solder Screw	2.01 1.81 1.53 1.25 1.80	1.28 1.17 .96 .81 1.12	1.15 1.05 .87 .74 1.02	.95 .89 .74 .63
757-4201 757-4230 757-4231 757-4904 757-4907	7504K4 7505K3 7505K4 7581K4 7581K7	On-On On-On On-On On-Off-On On-Off-On		10 10 10 3 3	15/32" 11/32" 16/32" 15/32" 11/32"	Screw Solder Solder Screw Solder	1.80 1.53 1.53 1.53 1.25	1.12 .96 .96 1.12 .96	1.02 .87 .87 1.02 .87	.86 .74 .74 .86 .74
757-4906 757-4069 757-4070 757-4090 757-4091 757-4270	7581K6 7502K12 7502K13 7503K12 7503K13 *7509K5	On-Off-On On-Off-On On-Off-On On-Off-On *On-Off-On	15 15 15 15	3 10 10 10 10	15/32" 11/32" 15/32" 11/32" 15/32" 15/32"	Solder Screw Screw Solder Solder Screw	1.25 1.80 1.80 1.53 1.53 2.34	.96 1.19 1.19 1.12 1.12 1.57	.87 1.04 1.04 1.02 1.02 1.42	.74 .89 .89 .86 .86

AC-DC RATED TOGGLE SWITCHES









SP On-Off

SP On-Off SP On-On DP On-Off DP On-On Quick-make, quick-break contact mechanism with wiping action. Arc-resistant, trease" proof design. Phenolic case with 15/32" dia. bushing; mounting hardware included. LL. and C.S.A. listed. *Also has horsepower rating. †is special 2-circuit switch. 2 oz.

SINGLE POLE 2-POSITION SWITCHES

- ·					Bush-	Fillip			EA	СН	
Stock No.	Mfr's Type	Circuit	Amp		ing Lgth.	Lever Lgth.	Termi- nals	1- 9	10- 49	50- 99	100- Up
757-6301 757-6302 757-6303 757-6551 757-6555	8280K14 8280K15 8280K16 8290K16 8295K7	On-Off On-Off On-Off On-Off On-Off		mmmmm	1/4" 11/32" 15/32" 15/32" 11/32"	1/2" 1/2" 1/2" 1/2" 1/2"	Solder Solder Solder Wire Screw	1.27 1.27 1.27 1.53 1.53	.85 .85 .85 .96	.65 .65 .79 .79	.58 .58 .58 .71
757-6556 757-7040 757-7041 757-7085 757-7086	8295K8 8381K7 8381K8 8391K7 8391K8	On-Off On-Off On-Off On-Off On-Off	6666	33333	15/32" 11/32" 15/32" 11/32" 15/32"	1/2" 1/2" 1/2" 1/2" 1/2"	Screw Solder Solder Wire Wire	1.53 1.46 1.46 1.73 1.73	.96 .91 .91 1.05 1.05	.79 .75 .75 .88 .88	.71 .67 .67 .78
757-7096 757-7097 757-3750 757-3751 757-3770	8396K7 8396K8 7321K2 7321K3 7361K5	On-Off On-Off On-Off On-Off On-Off	6 6 16 16 20	3 8* 8* 10*	11/32" 15/32" 11/32" 15/32" 15/32"	1/2" 1/2" 21/32" 21/32" 21/32"	Screw Screw Screw Screw Screw	1.73 1.73 2.74 2.74 4.61	1.05 1.05 1.67 1.67 3.21	.88 1.40 1.40 2.23	.78 .78 1.25 1.25 2.03
757-3810 757-6379 757-6380 757-6381 757-6530	7403K2 8282K12 8282K13 8282K14 8284K14	On-Off On-On On-On On-On On-On†	20* 3 3 3	20* 1 1 1 1	15/32" 1/4" 11/32" 15/32" 15/32"	21/32" 1/2" 1/2" 1/2" 1/2"	Screw Solder Solder Solder Solder	6.12 1.61 1.61 1.61 1.68	4.27 .99 .99 .99 1.03	2.94 .85 .85 .85 .87	2.65 .77 .77 .77 .80

DOUBLE POLE 2-POSITION SWITCHES

	0000110	0 011		_	245	240	0-14-	2.29	1.40	1.17	1.06
757-6656	8360K6	On-Off		3	1/4"	1/2"	Solder				
757-6658	8360K8	On-Off		3	11/32"	1/2"	Solder	2.29	1.40	1.17	1.06
757-6657	8360K7	On-Off		3	15/32"	1/2"	Solder	2.29	1.40	1.17	1.06
757-6841	8370K8	On-Off	6	3	11/32"	1/2"	Solder	2.46	1.49	1.24	1.12
757-6840	8370K7	On-Off	6	3	15/32"	1/2"	Solder	2.46	1.49	1.24	1.12
757-6895	8372K7	On-Off	6	3	15/32"	1/2"	Screw	3.00	1.83	1.50	1.35
757-3720	7320K2	On-Off	16	8*	11/32"	21/32"	Screw	2.56	1.57	1.28	1.17
757-3721	7320K3	On-Off	16	8*	15/32"	21/32"	Screw	2.56	1.57	1.28	1.17
757-3760	7360K7	On-Off	20	10*	11/32"	21/32"	Screw	4.41	2.70	2.15	1.94
		On-Off	20	10*	15/32"	21/32"	Screw	4.41	2.70	2.15	1.94
757-3761	7360K8			_							
757-3802	7402K3	On-Off	20*	20*	11/32"	21/32"	Screw	5.93	3.62	2.85	2.58
757-3803	7402K4	On-Off	20*	20*	15/32"	21/32"	Screw	5.93	3.62	2.85	2.58
757-6806	8363K6	On-On		3	1/4"	1/2"	Solder	2.64	1.61	1.32	1.20
757-6808	8363K8	On-On		3	11/32"	1/2"	Solder	2.64	1.61	1.32	1.20
757-6807	8363K7	On-On		3	15/32"	1/211	Solder	2.64	1.61	1.32	1.20
				3	15/32"	1/2"	Screw	3.47	2.13	1.71	1.54
757-6825	8365K7	On-On									
757-6911	8373K8	On-On	6	3	11/32"	1/2"	Solder	2.83	1.75	1.41	1.28
757-6910	8373K7	On-On	6	3	15/32"	1/2"	Solder	2.83	1.75	1.41	1.28
757-7005	8375K7	On-On	6	3	15/32"	1/2".	Screw	3.64	2.25	1.78	1.62
757-6957	8374K7	On-On	6	3	15/32"	1/2"	Wire	3.87	2,36	1.85	1.69
			15	1ŏ	11/2"	13/ 1		9.23	5.65	4.38	3.95
/5/-/630	809UNZ	On-On	10	10	19/32	1/16	Screw	3.23	3.63	4,30	3.33
757-7629 757-7630	8690K1 8690K2	On-On On-On	15	10	11/32" 15/32"	13/16"	Screw	9.23	5.65	4.38	3.95

AC HESITATION SWITCHES

Three-position (On-Off-On) switches with positive stop; prevents operation from one "on" position to the other without a stop in the center position. Use with reversing motors to prevent damage created by high current-counter EMF at the moment of reversing. Mechanical interlock prohibits action thru center position until pressure is momentarily relieved from lever. Screw term. Wt. 2 oz.



32	n
800	-
132 MAX.	-

			No.	Bush-	EACH					
Stock No.	Mfr's Type	Replaces A-H No.	of Poles	ing Dia.	1- 24	25- 49	50- 99	100- Up		
757-5435 757-5440 757-5425 757-5410	7992K10 7992K20 7991K10 7990K10		2234	15/32" 3/4" 15/32" 15/32"	10.82 10.82 13.51 15.14	7.53 7.53 9.42 10.55	5.15 5.15 6.56 7.45	5.83		

AC-DC DRY CIRCUIT SWITCHES

Suitable for low energy applications: below 50 mV where contact resistance must not exceed 200 ohms, or 10 mV at 50 ohms. Features quick-make, quick-break wiping contact mechanism. All switches are double pole. Coin silver or gold contacts and terminals. 2 oz.

Stock	Mfr's Cir-		Amp	s @		EACH					
No.	Type	cuit	125 V	250 V	Termi	1- 24	25- 49	50- 99	100- Up		
757-7020 757-7021	8376K1 8376K2		5	3	Silver Silver	2.98 3.42	2.07 2.38	1.66 1.80	1.39 1.58		
757-7031	8377K2	On-On	5	3	Gold	4.47	3.11	2.45	2.02		

DOUBLE POLE

Stock	Mfr's		Amp	os @	Bushing	Termi-		EA	СН	
No.	Type	Circuit	125V	250V		nais	1-9	10-49	50-99	100-U
757-4940 757-4943 757-4942 757-4945 757-5042	7590K4 7590K7 7590K6 7590K9 *7593K6	On-Off On-Off On-Off On-Off *On-Off	66666	333333	15/32" 11/32" 15/32" 11/32" 11/32"	Screw Solder Solder Spade Solder	2.04 1.66 1.66 1.66 2.53	1.32 1.19 1.19 1.19 1.60	1.21 1.01 1.01 1.01 1.37	1.02 .87 .87 .87 1.15
757-4501 757-4500 757-4561 757-4560 757-4562	7560K6 7560K5 7561K5 7561K4 7561K6	On-Off On-Off On-Off On-Off On-Off	15 15 15 15 15	10 10 10 10 10	11/32" 15/32" 11/32" 15/32" 15/32"	Screw Screw Solder Solder Spade	2.42 2.42 2.04 2.04 2.04	1.56 1.56 1.37 1.37 1.37	1.40 1.40 1.24 1.24 1.24	1.22 1.22 1.05 1.05 1.05
757-5004 757-5007 757-5006 757-4761 757-4760	7592K4 7592K7 7592K6 7564K7 7564K6	On-On On-On On-On On-On On-On	6 6 15 15	3 3 10 10	15/32" 11/32" 15/32" 11/32" 15/32"	Screw Solder Solder Screw Screw	2.42 1.87 1.87 2.98 2.98	1.56 1.29 1.29 1.98 1.98	1.40 1.14 1.14 1.79 1.79	1.22 .94 .94 1.52 1.52
757-4806 757-4805 757-4807 757-4970 757-4973	7565K6 7565K5 7565K7 7591K4 7591K7	On-On On-On On-On On-Off-On On-Off-On		10 10 10 3 3	11/32" 15/32" 15/32" 15/32" 11/32"	Solder Solder Spade Screw Solder	2.42 2.42 2.42 2.42 2.42 1.87	1.56 1.56 1.56 1.56 1.26	1.40 1.40 1.40 1.40 1.15	1.22 1.22 1.22 1.22 1.06
757-4972 757-4591 757-4590 757-4721	7591K6 7562K5 7562K4 7563K5	On-Off-On On-Off-On On-Off-On On-Off-On	15	3 10 10 10	16/32" 11/32" 15/32" 11/32"	Solder Screw Screw Solder	1.87 2.98 2.98 2.15	1.26 1.98 1.98 1.65	1.15 1.79 1.79 1.48	1.06 1.52 1.52 1.29
757-4720 757-4722 757-4861 757-4860	7563K4 7563K6 *7569K2 *7569K1	On-Off-On On-Off-On *On-Off-*O *On-Off-*O	15 n 15	10 10 10 10	15/32" 15/32" 15/32" 15/32"	Solder Spade Screw Solder	2.42 2.04 3.89 3.30	1.85 1.56 3.15 2.35	1.66 1.40 2.85 1.98	1.45 1.22 2.67 1.83

THREE POLE

Stock	Mfr's	Circuit	Am	ps @	Bushing		EACH					
No.	Туре	Circuit	125V	250V	Lgth.	nals	1-9	10-49	50-99	100-Up		
757-5069 757-5070 757-5071	7610K3 7610K2 7611K2	On-Off On-Off On-Off	15 15 15	10 10 10	11/32" 15/32" 15/32"	Screw Screw Solder	4.64 4.64 3.99	3.15 3.15 2.72	2.78 2.78 2.39	2.28 2.28 2.05		
757-6620 757-5090 757-5095 757-5097	8320K1 7614K2 7615K2 7615K4	On-Off On-On On-On On-On	15 15 15	20 10 10 10	15/32" 15/32" 15/32" 15/32"	Screw Screw Solder Spade	8.48 5.89 4.90 4.90	5.75 3.83 3.35 3.35	4.98 3.41 2.93 2.93	4.23 3.02 2.44 2.44		
757-5080 757-5085 757-5087	7612K2 7613K2 7613K4	On-Off-O On-Off-O	n 15	10 10 10	15/32" 15/32" 15/32"	Screw Solder Spade	5.89 4.90 4.90	3.93 3.38 3.38	3.58 2.97 2.97	2.98 2.47 2.47		

FOUR POLE

Stock	No. Type	Circuit :	Am	ps @	Bushing		EACH				
No.		Circuit	125V	250V	Lgth.	nals	1-9	10-49	50-99	100-Up	
757-5170 757-5180 757-5194 757-5205 757-5182 757-5190	7690K8 7691K14 7694K4 7695K5 7692K13 7693K2	On-On	n 15	10 10 10 10 10	15/32" 15/32" 15/32" 15/32" 15/32"	Screw Solder Screw Solder Screw Solder	6.67 6.02 8.31 7.32 8.31 7.33	4.45 4.05 5.48 4.85 5.48 4.85	3.90 3.62 5.07 4.38 5.07 4.38	3.45 3.22 4.61 3.73 4.61 3.73	

SWITCH HARDWARE









For 19/22" diameter bushing toggle switches. Types (A), (B) and (C) are keyway switch plates; (D) is a locking ring; (E) is an internal tooth lockwasher. Locking ring and washer are in packages of 100. Av. shpg. wt. 8 oz.

No.	Туре	Fig.	1-49	50-99	100-24	9 250-Uş
	30-5632-4	A	.11	.07	.06	
	30-5632-13 30-5632-16	B	-11	.07	.06	.055
	29-761-3		Per Pkg			5-10 2.79
757-2216	16-886	E	Per Pkg	. 100 1-4	4.00	5-10 2.23

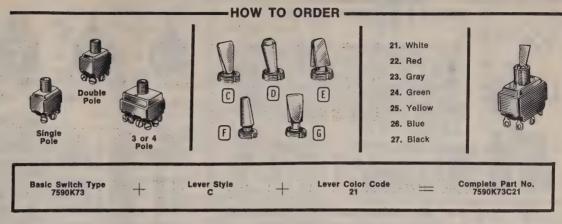
15/32-

Design Your Own Switch to Fit Any Application... It's Easy With "Designer Series" Toggle Switches



- 5 Lever Styles
- 1, 2, 3 or 4 Pole
- 7 Lever Colors

Now you can design your own toggle switch to meet your spe-cific requirements. The com-plete manufacturer's part number is formed by specifying the Basic Switch Type (single, double, triple or four pole, in double, triple or four pole, in the circuit, terminal type and rating desired) and adding a code letter (C, D, E, F or G as illustrated below) to indicate lever shape; followed by a number (21 thru 27 as in table, right) to indicate lever color. The same process is followed with the Allied Stock No., using the numbers in parentheses below, right (3, 4, 5, 6 or 7) to indicate shape and numbers 1 thru 7 to indicate color.



EXAMPLE Mfr's Type 7590K73C21 (7590K73 + C + 21) is a single pole On-Off switch rated 6A at 125 V, with C style lever

in white. The Allied Stock No. of this switch (see Codes below) would be 531-1631 (531-16XX becomes 531-16 \pm 3 \pm 1).

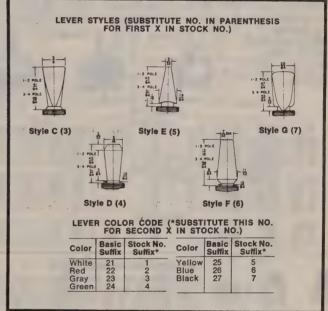
AC RATED "DESIGNER LINE" TOGGLE SWITCHES

	SINGLE POLE														
Stock	Basic	Amp	s @		Termi-	EACH									
No.	Switch Type	125 V	250 V	Circuit	nais	1-	25- 49	50- 149	150- Up						
531-16XX 531-17XX 531-20XX 531-21XX 531-24XX 531-25XX 531-26XX	7590K73 7590K74 7591K73 7591K74 7592K73 7592K74 7597K73	666666	3333333333	On-Off On-Off On-Off-On On-Off-On On-On On*-Off-On*	Screw Solder Screw Solder Screw Solder Screw	1.85 1.53 2.16 1.70 2.16 1.70 2.78	1.29 1.07 1.50 1.19 1.50 1.19 1.94	1:03 .85 1.20 .94 1.20 .94 1.55	.87 .73 1.03 .81 1.03 .81 1.32						
531-27XX 531-01XX 531-03XX 531-05XX 531-07XX 531-09XX 531-11XX	7597K74 7560K73 7561K74 7562K73 7563K74 7564K73 7565K74	6 15 15 15 15 15 15	3 10 10 10 10 10	On*-Off-On* On-Off On-Off On-Off-On On-Off-On On-On	Solder Screw Solder Screw Solder Screw Solder	2.40 2.16 1.85 2.62 2.16 2.62 2.16	1.67 1.50 1.29 1.83 1.50 1.83 1.50	1.33 1.20 1.03 1.46 1.20 1.46 1.20	1.13 1.03 .87 1.24 1.03 1.24 1.03						

	DOUBLE POLE													
531-14XX 531-15XX 531-18XX 531-18XX 531-22XX 531-22XX 531-23XX 531-12XX	7590K53 7590K54 7591K53 7591K54 7592K53 7592K54 7569K53	6 6 6 6 6 6 15	3 3 3 3 3 3 10	On-Off On-Off On-Off-On On-Off-On On-On On-On On*-Off-On*	Screw Solder Screw Solder Screw Solder Screw	2.22 1.91 2.54 2.07 2.54 2.07 3.75	1.54 1.33 1.77 1.44 1.77 1.44 2.61	1.23 1.06 1.41 1.15 1.41 1.15 2.09	1.05 .90 1.20 .98 1.20 .98 1.77					
531-13XX 531-00XX 531-02XX 531-04XX 531-06XX 531-08XX 531-10XX	7569K54 7560K53 7561K54 7562K53 7563K54 7564K53 7565K54	15 15 15 15 15 15 15	10 10 10 10 10 10	On*-Off-On* On-Off On-Off On-Off-On On-Off-On On-On On-On	Solder Screw Solder Screw Solder Screw Solder	3.26 2.54 2.22 3.00 2.54 3.00 2.54	2.49 1.77 1.54 2.09 1.77 2.09 1.77	1.99 1.41 1.23 1.67 1.41 1.67 1.41	1.69 1.20 1.05 1.42 1.20 1.42 1.20					

				TRIPLE POLI	E				
531-28XX	7690K73	15	10	On-Off	Screw	6.10	3.96	3.76	3.38
531-30XX	7692K73	15	10	On-Off-On	Screw	6.59	4.08	3.85	3.47
531-31XX	7694K73	15	10	On-On	Screw	6.70	4.15	3.92	3.51
				FOUR POLE					
531-32XX	7690K53	15	10	On-Off	Screw	6.59	4.08	3.85	3.47
531-29XX	7692K53	15		On-Off-On	Screw	7.94	5.53	4.92	3.77

Highly versatile "Designer Line" AC switches utilize nylon toggles in five styles and seven colors, for use where "eye-appeal" is an important design factor. All switches have 15/32" diameter bushing, with 15/32" x 32 thread. Available with screw or solder lug terminals. *indicates momentary contact. To order, add suffixes for Lever Style and Lever Color as described above. Av. shpg. wt. 2 oz.



AC-DC RATED "DESIGNER LINE" TOGGLE SWITCHES

Last letter in Mfr's Type indicates lever style - refer to illustrations at right.

ON-OFF CIRCUIT SINGLE POLE (6 A @ 125 V, 3 A @ 250 V)

Stock	Mfr's	Lover	EACH							
No.	Type	Color	1- 24	25- 49	50- 149	150- Up				
757-7050 757-7051 757-7052 757-7058 757-7062	8381K21C 8381K21D 8381K22C 8381K22D 8381K25C	White White Red Red Yellow	1.45 1.45 1.45 1.45 1.45	.90 .90 .90 .90	.80 .80 .80 .80	.67 .67 .67 .67				
757-7070 757-7060	8381K27C 8381K24C	Black Green	1.45 1.45	.90 .90	.80 .80	.67 .67				
DO	DOUBLE POLE (6 A @ 125 V, 3 A @ 250 V)									
757-6860 757-6862 757-6863	8370K21C 8370K22C 8370K22D	White Red Red	2.30 2.30 2.30	1.44 1.44 1.44	1.28 1.28 1.28	1.07 1.07 1.07				

Yellow

Black Green

757-6872

8370K25C

ON-ON CIRCUIT SINGLE POLE (3 A @ 125 V, 1 A @ 250 V)

Stock	Mfr's	Lever	EACH					
No.	Type	Color	1- 24	25- 49	50- 149	150- Up		
757-6501 757-6503 757-6512	8282K21C 8282K22C 8282K25C	White Red Yellow	1.58 1.58 1.58	.98 .98 .98	.88 .88	.74 .74 .74		
757-6520 757-6510	8282K27C 8282K24C	Black Green	1.58 1.58	.98 .98	.88 .88	.74 .74		

DO	UBLE POLE	(6 A @ 12	5 V, 3 A	4 @ 2	50 V)	
757-6920	8373K21C	White	2.61	1.62	1.45	1.21
757-6921	8373K21D	White	2.61	1.62	1.45	1.21
757-6922	8373K22C	Red	2.61	1.62	1.45	1.21
757-6923	8373K22D	Red	2.61	1.62	1.45	1.21
757-6932	8373K25C	Yellow	2.61	1.62	1.45	1.21
757-6940	8373K27C	Black	2.61	1.62	1.45	1.21
757-6941	8373K27D	Black	2.61	1.62	1.45	1.21
757-6930	8373K24C	Green	2.61	1.62	1.45	1.21

- Two Lever Styles
- Five Lever Colors

AC-DC rated "Designer Line" toggle switches in choice of two lever styles and five attractive colors. Style is indicated by the last letter in "Mfr's Type" in tables at left (Style C or Style D). All switches are double insulated and feature quick-make, quick-break contact mechanism.

Nylon bushing is $\frac{1}{2}$ dia. and $\frac{1}{2}$ long. Levers are approximately $\frac{3}{2}$ long. Solder lug terminals. U.L. and C.S.A. listed. 2 oz.



Lever Style C



Lever Style D

2.30 | 1.44 | 1.28 | 1.07

ST SERIES JAN-S-23 MEDIUM DUTY TOGGLE SWITCHES



JAN-S-23 single and double pole toggle switches for medium duty applications. MIL-S-83731 current ratings: 3 amps resistive at 125 VDC or 115 VAC, 1½ amps inductive at 125 VDC or 115 VAC (except type ST22N, rated 1 amp resistive or Inductive at 125 VDC or 115 VAC. Continuity is made to terminals on same side as lever throw. Self-wiping contacts; stationary contacts are silver plated brass; movable contacts are silver plated phosphor bronze. Contact resistance is well under 0.01 ohm. Snap action and positive detent. Shpg. wt. 0 oz.

Stock	IAN-6-22	MIL-S-83731	Circuit	EACH					
No.	Type		O. Cont	1-9	10-24	25-49	50-Up		
826-4012 826-4081 826-4276 826-4279	ST12A ST12D ST22K ST22N	MS25098-22 MS25098-23 MS25100-22 MS25100-23	SPST On-None-Off SPDT On-None-On DPST On-None-Off DPDT On-None-On	1.42 1.57 1.97 4.02	1.14 1.39 1.58 3.32	.80 1.02 1.12 2.29	.70 .93 .97 1.99		



MIL-S-8834 POSITIVE ACTION SWITCHES

Toggle assembly is mechanically linked to movable contact, insuring positive make and break. Detent mechanism. Phenolic and stainless steel housing. Silicone rubber lever seal. Gold plated self-wiping contacts: 3A @ 117 VAC, 4A @ 28 VDC res. *momentary.

Stock	Mfr's	Gov't	Poles	Lever Travel				EACH		
No.	Туре	Ms No.	10100	Up	Center	Down	1-24	25-49	50-99	100-Up
757-8076	8866K1	24655-211	Single	On	Off	. On	8.05	5.13	4.50	4.13
757-8082 757-8079	8866K7 8866K4	24655-221 24655-231	Single Single	On On	None None	Off On	8.05 8.05	5.13 5.13	4.50	4.13
757-8107	8867K1	24656-211	Double	On	Off	On	10.05	6.38	5.81	5.14
757-8113 757-8110	8867K7 8867K4	24656-221 24656-231	Double Double	On On	None	Off	10.05	7.41 6.38	6.51 5.81	5.96 5.14
757-8108	8867K2	24656-271	Double	On*	Off	On*	11.65	7.41	6.51	5.96

MIL-S-83731 SWITCHES WITH 4-Pole 2-Pole LEVER SEAL Rocker-type mechanism; tinned screw term. *Momentary. 2 oz. 11/16 15/16 --1 21 17/16 1-Pole SINGLE POLE Lever Trave EACH Gov't Center Down 1-24 | 25-49 | 50-99 | 100-Up 757-7770 DOUBLE POLE FOUR POLE





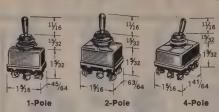


SWITCH AND PANEL SEALS

Military types perform three functions: provide vibration resistance for the mounting nut; seal mounting hole; and seal switch lever to 15 psi. Commercial type AN1111-14 is of black neoprene. Removable round nuts. Shpg. wt. 1 oz.

Stock	Mfr's	Mfr's Threads		Type &	EACH				
No.	Туре		MIL B 5423/	Style	1-24	25-99	100-499	500-Up	
757-1010	SWI-AN1030	15/32-32	1	A1	1.37	1.04	.84	.65	
757-1050	SWI-BN1030	15/32-32	2	A3	1.37	1.04	.84	.65	
757-1028	SWI-AN3030	15/32-32-5/16	7	B21	1.35	1.03	.82	-65	
757-1063	SWI-NC3030	15/32-32-7/16	7	B22	1.22	.93	.74	.59	
757-1035	SWI-AN9030-14	3/8-32	5.9	C2	1.15	.87	.70	.55	
757-1014	SWI-AN1111-4	15/32-32	Comn	nercial	.51	.32	.28	.25	

ENVIRONMENTALLY SEALED TOGGLE SWITCHES



GLE SWITCHES
MIL-S-8834 POSITIVE ACTION.
"Tease-proof" action with toggle linked directly to movable contact member to insure positive make and break, and excellent "feel." Mechanism is fully enclosed in nylon filled moiding and brass housing; environmentally sealed by seal bonded to bushing and lever, seals under contacts and between base and shell. Screw term. Rated 25 A @ 28 VDC, 20 A @ 115 VAC res. "Momentary, 2 oz.

			SINGLE POLE							
Stock	Mfr's	Gov't	Laver Travel		EACH					
No.	Type	MS No.	Up-Center-Down	1-24	25-49	50-99	100-Up			
757-7920 757-7928	8836K1 8836K9	25306-212 25306-222	On-Off-On On-None-Off	15.00 14.50	9.41	8.27 7.98	7.58 7.31			
			DOUBLE POLE							
757-7950 757-7958 757-7953 757-7951	8837K1 8837K2 8837K4 8837K2	25307-212 25307-222 25307-232 25307-272	On-Off-On On-None-Off On-None-On On*-Off-On*	20.75 20.50 20.75 22.25	10.43 9.91 10.43 11.23	9.58 9.20 9.68 10.42	9.07 8.62 9.07 9.76			
			FOUR POLE	*	Page 1					
757-7970 757-7978	8838K1 8838K9	25308-212 25308-222	On-Off-On On-None-Off	40.00 38.00	20.87 19.83	19.37 18.40	18.14 17.24			
P 6	9	C 2050 Dat	onted coaling n	200000	achievae	a eagl e	ufficiently			



MIL-S-3950. Patented sealing process achieves a seal sufficiently tight to pass a mass spectrometer test, yet durable enough to keep the switch sealed throughout its life. Improved teeter-totter mechanism provides positive "feel" and reliable return action. Silver contacts for long-life. Anodized aluminum bushing and cover; molded melamine/phenolic base. Environmentally sealed according to MIL-S-3950 standards. *Momentary contact. Double pole. Wt. 2 oz.

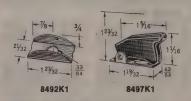
Stock	Mfr's Gov't		Gov't Circuit	EACH					
No.	Type	MS No.	0	1-24	25-49	50-99	100-Up		
757-7441 757-7449 757-7444 757-7442	8501K1 8501K9 8501K4 8501K2	24524-21 24524-22 24524-23 24524-27	On-Off-On On-None-Off On-None-On On*-Off-On*	9.07 9.07 9.07 9.07	7.20 7.20 7.29 7.20	6.64 6.64 6.64 6.64	5.74 5.74 5.74 5.74		



JAN-S-23 HEAVY DUTY **TOGGLE SWITCHES**

Rated 10 A @ 117 VAC, 20 A @ 28 VAC. Solder lug term. *Momentary. †has silicone rubber lever seal. 2 oz.

					_					
Stock	Mfr's	JAN		Lever Travel			EACH			
No.	Type	No.	Up	Center	Down	1-24	25-49	50-99	100-Up	
757-7730 757-7734 757-7790 757-7720 757-7820 757-7780	8803K6 8803K10† 8816K5 8802K6 8818K5 8815K6	ST42A ST42A ST42D TS42E ST42G ST42H	On On On On On	None None None Off Off	Off Off On On On* On*	2.42 2.57 2.55 2.55 2.80 2.80	1.68 1.80 1.77 1.77 1.95 1.95	1.32 1.40 1.38 1.38 1.53 1.53	1.21 1.28 1.26 1.26 1.40 1.40	
			DOU	BLE POL	E					
757-7863 757-7875 757-7851 757-7890 757-7910 757-7897	8823K5 8825K5 8821K5 8831K5 8835K3 8832K3	ST52K ST52N ST52P ST52R ST52S ST52S	On On On On On* On	None Off Off None Off	Off None On On* On* On*	3.10 3.10 3.25 4.00 4.00	2.16 2.16 2.27 2.79 2.79 2.79	1.65 1.72 1.72 2.17 2.17 2.17	1.51 1.55 1.55 1.95 1.95 1.95	



ONE-HOLE-MOUNTING SWITCH GUARDS

Prevents accidental operation of toggle switches, 8492K1: With pin in place, toggle will operate in left and center position but not in extreme right pos. 8497K1: Switch is always in Off pos. when guard is down; can only go to On pos. when guard is up. 2 oz.

Stock	Mfr's Gov't	Mate-			EACH				
No.	Type	Part No.	rial	Color	1-24	25-49	50-99	100-Up	
757-7182 757-7187	8492K1 8497K1	MS24417-1 MS25224-1	Metai Phenolic	Black Red	1.27	1.07 2.04	1.89	.83 1.57	

ULTRAMINIATURE PUSHBUTTON SWITCHES WITH GOLD PLATED TERMINALS

N.O. rated .750 amp at 125 VAC; N.C. contacts, 0.50 amp at 125 VAC. Gold plated contacts. Life, 50,000 operations min. Screw-on cap for switch must be ordered separately on following page (.250").

				EACH				
Stock No.	Mfr's Type	Cir-	Button	1-	10- 24	25- 99	100- Up	
757-0020 757-0042	SAI-RV20 SAI-BV20 SAI-RW20 SAI-BW20	N.O. N.O. N.C. N.C.		1.00	.95	.64 .64	.57	

ULTRAMINIATURE PUSHBUTTON SWITCHES

ULTRAMINIATURE PUSHBUTTON SWITCHES
WITH SOLDER LUG TERMINALS

Rated 3A @ 125 VAC. 14-40 bshg. Half behind-panel size of miniature switches. Screw-on cap for switch must be ordered separately (.315" or .395" on following page).

395			NE POLE					
333				EACH				
366 1-40 THD	Stock No.	Mfr's Type	Action	1-9	10-	25- 99	100- Up	
236	757-0160 757-0161	SA31SDT1 SA31SET1	Momentary Push-push	2.15 2.15	2.05 2.05	1.38	1.23	
709		7	WO POLE					
413 260	757-0162 757-0163	SA32SDT1 SA32SET1	Momentary Push-push	3.00 3.00	2.85 2.85	91 1.91	1.71	

ULTRAMINIATURE PUSHBUTTON SWITCHES WITH PRINTED CIRCUIT TERMINALS

3A @ 125 VAC. ¼-40 bshg. Order screw-on cap on following page (.315" or .395").



	ONE POLE											
	- EACH											
Stock No.	Mfr's Type	Action	1-	10- 24	25- 99	100- Up						
	SA31SDT6 SA31SET6											
TWO POLE												

Illuminated & Pushbutton Switches

SUBMINIATURE ADAPT-A-SWITCHES



For business machines and computers. Lighted push-button switches designed for 25,344 combinations with 31 components listed below. Rated: 5A, 125VAC; 2A, 250 VAC, 5A, 28VDC, 10 mA minimum for dry circuit, 50 mV. Use T-134 style bulb. Shpg. wt. 1/4 oz.

RECTANGULAR ACTUATOR INDICATORS

Stock	Mfr's	Description						
No.	Type	of Action	1-9	10-24	25-99	100-Up		
717-1080	83501	Rec. Momentary	2.31		1.31			
717-1083		Rec. Alternate	3.62					
717-1081 717-1084	83502 83505	Square Momentary Square Alternate	2.31	1.85	1.31	1.14		
717-1082	83503	Round Momentary	2.31	1.85	1.31	1.14		
717-1085	83506	Round Alternate	3.62	2.90	2.06	1.80		

LENSES FOR ABOVE INDICATORS

Stock No.	Mfr's Type	Description	Stock No.	Mfr's Type	Descrip- tion					
717-1054	83500-71 83500-72 83500-74 83500-75	Rect. red Rect. green Rect. yellow Rect. amber	717-1061 717-1062 717-1063 717-1069	83500-82 83500-83	Sq. green Sq. blue					
1-9Each .33 10-24Each .26 25-99Each .19 100-UpEach .16										

Contact Blocks (Silver plated contacts)

Stock	Mfr's	Description		EACH	
No.	. Туре	pescultum	1-9	10-24	25-Up
717-0030	83500-30	Std. Duty	2.25	1.75	1.20

Snap-on Clip to Convert any Actuator to Indicator 717-1039 83500-51 .33 .26

MINIATURE PUSHBUTTON SWITCHES

STANDARD MINIATURE PUSHBUTTON SWITCHES

Rated 5 A @ 125 VAC. ¼-40 bushing. Solder lug terminals. Order .315" or .395" cap separately below.



EACH

757-0148 SA24SDX1 Momentary 5.62 5.35 3.59 3.21 757-0149 SA24SEX1 Push-push 5.62 5.35 3.59 3.21

WATERTIGHT MINIATURE PUSHBUTTON SWITCH

Sealed to withstand a 3.3 ft. head of water for 15 minutes. Rated 5 A @ 125 VAC.

THD. Solder lugs. Order .315" or .395" cap.

ONE POLE 757-0114 SA21 WDX1 Momentary 2.57 2.45 1.64 1.47 757-0115 SA21 WEX1 Push-Push 2.57 2.45 1.64 1.47 TWO POLE 757-0132 SA22WEX1 Push-push 3.52 3.35 2.25 2.01

LARGE BUSHING PUSHBUTTON SWITCHES

Rated 5 A @ 125 VAC. 15/32-32 bshg. Solder lugs. Order .520" screw-on cap below. ONE POLE

757-0100 SA21GDX1 Momentary 2.52 2.40 1.61 1.44 757-0101 SA21GEX1 Push-push 2.52 2.40 1.61 1.44

TWO POLE 757-0102 SA22GDX1 Momentary 3.15 3.00 2.01 1.80 757-0103 SA22GEX1 Push-push 3.15 3.00 2.01 1.80

SELECT SCREW-ON CAPS HERE FOR PUSHBUTTON SWITCHES



.315" and .395" caps are for ultraminiature, standard and watertight miniature pushbutton switches; .520" cap is for large bushing switches only.

SUBMINIATURE PUSH-BUTTON SWITCHES

SWITCHES

Gold-plated silver contacts; gold plated brass term.; diallyl phthalate base. Rated 2A res. @ 29 VDC, 1A @ 115 VAC.

Stock No.	Mfr's Type	Action	EACH
717-0053	PM-3	SPDT	4.29
717-0056	PM-6	DPDT	5.25

BXR BOX SWITCHES

Tiny flush-mount, momentary action pusbutton switches provide up to 4 poles. Mount in 615" sq. hole from front of panel. Rated 250 mA, 30W max. AC non-inductive. Snapin mtg. Solder lug term. 8 oz.



Stock Type		C4	Color			EACH		
No.	BXR	Cont. Ass'y.	Color	1- 9	10- 24	25- 49	50- 99	100- Up
933-0229 933-0231 933-0233 933-0235	-01-1 -05-3 -01-3 -05-6	1-A 1-C 1-C 2-C	Red White Red White	3.10 3.25 3.60 3.55	2.16		1.73 1.80 1.96 1.98	
933-0236 933-0237 933-0238	-02-6 -01-6 -02-6	2-C 2-C 2-C	Black Red Green	3.55 3.55 3.55		2.17 2.17 2.17	1.98	

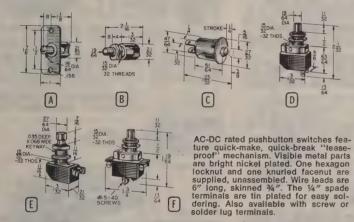
.315" Dia.			.395"		.520" Dia.		
Color	Stock No.	Type SW53-	Stock No.	Type SW53-	Stock No.	SW53-	
White Red Black Blue Yellow Green	757-1121 757-1122 757-1123 757-1124 757-1125 757-1126	AA21 AA22 AA23 AA24 AA25 AA26	757-1171 757-1172 757-1173 757-1174 757-1175 757-1176	AA71 AA72 AA73 AA74 AA75 AA76	757-1181 757-1182 757-1183 757-1184 757-1185 757-1186	A A 81 A A 82 A A 83 A A 84 A A 85 A A 86	

MULTI-PURPOSE PUSHBUTTON SWITCHES-AC OR AC-DC RATED

AC-DC PUSHBUTTON SWITCHES



AC PUSHBUTTON SWITCHES

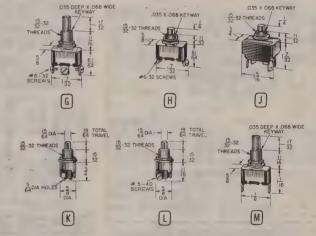


Stock	Mfr's		Rati	ng @	Button	Termi-	EACH				
No.	Туре	Fig.	125V	250V	Color	nals	1-24	25-49	50-99	100-Up	
757-2301	8410K3	Α	3/4A	1/4A	Black	Screw	.95	.76	.54	.47	
757-2305	8411K11	В	3/4A	1/4A	Black	Spade	. 67	.54	.38	.33	
757-2309	8411K12	В	3/4A	1/4A	Black	Screw	.80	.64	.45	.40	
757-2311	8411K13	В	3/4A	1/4A	Red	Spade	.67	.54	.38	.33	
757-2315	8424K1	C	3/4A	1/4A	White	Spade	.55	.44	.31	.27	
757-2319	7190K1	D	6A	3A	Nickel	S. Lug	2.00	1.60	1.14	.99	
757-2325	7196K1	D	6A	3A	Nickel	Screw	2.20	1.76	1.25	1.09	
757-2329	7193K1	D	6A	3A	Nickel	Wire	2.20	1.76	1.25	1.09	

SINGLE POLE-MOMENTARY-NORMALLY OPEN

	SING	LE PO	LE-N	OME	NTARY-	NORMAL	LY CLC	SED		
757-2333 757-2337 757-2340 757-2343	8410K1 8411K7 8411K8 8423K1	A B C	34A 34A 34A 34A	1/4 A 1/4 A 1/4 A 1/4 A	Black Black Black White	Screw Screw S. Lug Spade	.72 .65 .50 .45	.58 .52 .40 .36	.41 .37 .28 .26	.36 .32 .25 .22
		SIN	GLE P	OLE-	PUSH C	N-PUSH	OFF			

		SIM	are L	OLE-	PUSH U	M-PUSH	UFF			
757-2347 757-2351	7206K4 7207K4	E	6A 6A	3A 3A	Nickel Nickel	S. Lug Wire	1.48	1.18	.84	.73
757-2355	7208K4	Ē	6A	3A	Nickel	Screw	1.70	1.36	.97	.89
	DOI	UBLE	POLE	DOUB	LE THR	OW-WO	MENTA	RY		
757-2359	7199K2	F	6A	3A	Nickel	S. Lug	3.58	2.86	2.03	1.77



AC rated pushbutton switches feature slow-make, slow-break momentary contact mechanism. Bright nickel plated button. 15/22" diameter bushing. Mounting hardware is supplied unassembled

SINGLE POLE-NORMALLY OPEN

Stock	Mfr's	:		Rating @				EA	CH	
No.	Type	Fig.	125V		125/250V	nals	1-24	25-49	50-99	100-Up
757-2364	8440K2	G	3A			S. Lug	1.38	1.10	.78	.68
757-2363	8440K3	R	3A			Screw	1.58	1.26	.89	.78
757-2365	8442K2	J	6A	3A		Spade	1.53	1.06	.75	.66
757-2369	8442K4	L	6A	3A		Screw	1.50	1.20	.85	.74
757-2371	8444K2	J	15A	10A	⅓ hp	Spade	1.45	1.16	.82	.71
757-2372	8444K3	J	15A	10A	⅓ hp	Screw	1.60	1.28	.91	.79
757-2373	8444K4	L	15A	10A	1/3 hp	Screw	1.60	1.28	.91	.79

757-2379	8446K2	K	T 15A	10A	1/2 hn	Screw	1.85	1.48	1.05	.92
----------	--------	---	-------	-----	--------	-------	------	------	------	-----

DOUBLE POLE-NORMALLY OPEN 753-2383 8448K2 M 15A 10A Screw 2.30 1.84 1.31 1.14

Illuminated & Pushbutton Switches



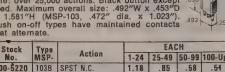
MOMENTARY PUSH SWITCHES

Wide selection of popular momentary push switches for commercial and industrial applications. AC only except Mfr's Type Number 80630 which is AC-DC. ‡ Indicates midget size, constructed of molded phenolic; *canopy size, phenolic sections. Rated 3 amps at 125 VAC, 1/10 hp at 125 volts, except § 8 amps at 250 volts, 16 amps at 125 volts, 1 hp; † 1 amp at 125 volts, # 1 amp at 250 volts, 3 amps at 125 volts, AC-DC. All types listed have 15½" diameter shanks. U.L. Recognized. Av. shpg. wt. 3 oz. each.

						EACH	
Stock No.	Mfr's Type	Fig.	Action	Button	1-	25- 49	50- Up
717-0210 717-0215 717-0203 717-0206 717-0220	*3391 -GL *3391 -GL *3391 -GJ *3391 -GJ *3392	A† A† A† A†	SPST-N.O. SPST-N.C. SPST-N.C. SPST-N.C. SP2-N.C.	Black Red Red Black Nickel	1.93 1.93 1.93 1.93 1.89	1.32 1.16 1.32 1.32 1.29	1.07 1.07 1.07 1.07 1.07
717-0225 717-0230 717-0243 717-0242 717-0235	*3392-AE *3392-AE #3594-Q #3594-Q #3594-PA	A† A† A A	SP2-N.C. SP2-N.C. DPST-N.O. DPST-N.O. DPST-N.C.	Black Red Red Black Black	2.34 2.34 3.75 3.75 3.75	1.41 1.55 3.53 3.53 3.53	1.30 1.30 2.72 2.72 2.72
717-0250 717-0245 717-0420 717-0421 717-0430	3599-GF 3599-GF \$80511 \$80511-E \$80541-R	A# B B	DPDT-N.C. DPDT-N.C. SPST-N.C. SPST-N.O. SPST-N.C.	Red Black Nickel Nickel Red	4.75 4.75 .96 .96 1.82	2.87 2.87 .69 .69 1.27	2.65 2.65 .56 .56 1.07
717-0426 717-0450	‡80541-ER 80630	B C§	SPST-N.O. DPST-N.O.	Red Nickel	1.82 3.29	1.27 2.62	

PUSHBUTTON SWITCHES

Snap-action switches in momentary or push-push alternate action. Rated 6 A at 125 VAC. or 28 VDC except MSP-103, 3 A at 125 VAC. Life: over 25,000 actions. Black button except "red. Maximum overall size: 492"W x 453"D x 1.581"H (MSP-103, .472" dia. x 1.023"). Push on-off types have maintained contacts that alternate.



Stock	Type			EAC	CH	
No.	MSP-	Action	1-24	25-49	50-99	100-Up
700-5220	103B	SPST N.C.	1.18	.85	.58	.54
700-5221		SPST N.O.°	1.25	1.00	.77	. 67
700-5236	105D	SPDT Push on-off	3.50	2.80	2.14	1.99
700-5237	105F	SPDT Momentary	3.30	2.35	1.60	1.41
700-5254	205N	DPDT Push on-off	4.70	3.76	2.87	2.66
700-5255	205R	DPDT Momentary	4.48	3.20	2.18	1.92

MPE SERIES WATERPROOF

Rated 6 amps resistive, 2 amps inductive at 125 VAC. Double "O" waterseals and low-loss "E" Series case; turret terminals. Black button.

Stock	Mfr's		EACH				
No.	Туре	Action	1-9	10-24	25-99	100-Up	
700-5334 700-5360	E-206R E-406N	DPDT Momentary 4PDT Push on-off	4.65 6.08 8.90 8.90	3.72 4.86 7.12 7.12	2.64 3.45 5.05 5.05	2.30 3.01 4.41 4.41	

MOMENTARY PUSHBUTTON SWITCHES
"P" style has gold on copper alloy contacts rated 1 amp
resistive at 120 VAC, for use in low energy circuits; can
be wired N.O. or N.C.; black nylon snap-on caps. "MP"
types have coin silver plated on contacts rated 1 amp
resistive at 120 VAC. Wt. 2 oz.

Stock	Mfr's		01		E/	ACH	
No.	Type	Action	Plunger	1-24	25-99	100-499	500-up
652-0620	P1F1	SPDT		2.92	2.55		1.52
652-0621		DPDT	1	3.75	3.45	2.30	2.06
652-0610				1.05	.90	.60	.53
652-0611	MP1E1	SPST-N.C	. Black	1.05	.90	.60	.53

LIGHTED/NON-LIGHTED "UNISWITCH"



Low-cost momentary action pushbutton switches. *Illuminated (solder lug light terminal-takes P-2290 lamp) or fron-Illuminated. '¼' square-mount in single panel cutout from panel front; 1¼4 to 11¾4" behind panel. Snap-lock installation in panels ¾4" thick. 250 mA, 30 W max., AC noninductive, SPST-N.O. contacts. White. Lamp is 6 V BI-Pin. Wt. 2 oz.

Stock	Mfr's	C	EACH				
No.	Type	Con- tacts	1-9	10- 24	25- 49	50- Up	
933-2301 933-4150 933-3235	*LUS-05-01 †US-05-01 P-2290	1A 1A Lamp	1.71 1.35 1.44	1.36 1.08 1.15	1.05 .83 .88	.95 .75 .80	

"BUTTON SWITCHES"

Small SPDT momentary-action switches. Types 903 and 913 (Figure A) are %" long, for behind-panel mounting in panels up to 1½" thick; fit 1½" hole. Types 923 and 933 (Figure B) are 1½" long; mount in front of panels up to ½" thick; fit 1½" dia. hole. All are rated 250 mA, 30 watts maximum, AC noninductive. Contact Form, 1-C. Provides single "A" (make), single "B" (break) or "C" (break-make) circuit by connecting terminals in various ways. Silver plated brass terminals. Nickel plated brass body. Wt. 3 oz.

Red Button Bla		Black Bu	ck Button		EACH			
Stock No.	Mfr's Type	Stock No.	Mfr's Type	1-	10- 24	25- 49	50- 99	100- Up
933-6203 933-6223		933-6213 933-6233			1.11 1.18	.86 .91	.78	.62 .66

PUSHBUTTON "TINY SWITCHES"

For use in microphones, radios, auto test instruments. Nickel-plated brass frame and bushing; ¼" threaded shank; ¼," long. Requires %," depth in panels up to ½," thick. For low-level currents only. Type 951 has

make" (1-C). Wt. 3 oz.									
933-6251 933-6253	951 953	933-6263	963	1.05 1.25	.63 .90	.58 .69	.53 .63	.42 .50	

PL PUSH-LIGHT SWITCHES

Reliable leaf-spring switching. Rated 2A, 200W max.; AC non-inductive load. Mount with clamptype bracket; no hardware needed. Flange mtg. requires 1" x .875" panel cutout; 134" behind panel. Accepts T-134, flange base lamp (not incl.) in 6V, 28V or neon 115V.



A -15/16 -

1/4-32 |-+ 11/64 THD

MOUNTING BARRIERS (BLACK)

Stock	BASE's		EACH					
No.	Mfr's Description	1-9	10- 24	25- 49	50- 99	100- Up		
933-3155 933-3160		End Barrier Center Barrier	.12	.10	.083	.075	.06	

MOMENTARY ACTION-SINGLE LAMP

Stock	Mfr's	Con-				
No.	Type	tacts	1-9	10-24	25-49	50-Up
933-3173	PL-1062-05	2-C	8.55	6.70	5.23	4.75

	H-LOCK/PU					
22 2175	DI 1067 05	2 C	0.00	7 00	5 50	5 00

PUSH-LOCK/PUSH-RELEASE-TWIN	LAMP	
FUSH-LUCK/FUSH-NELLASEIWIN	PAINT	

933-3194	PL-2067-05	2-C	9.90	7.60	6.05	5.50

	1 2 2001 40			<u> المنظمة </u>		
		IGHT D	IVIDER			
		IGHT L	IAIDEL	3		
933-3162	DI EE1		0.0	0.7	055	DE
333-3107	LT-001		.09	.07	.นวว	.05

ILLUMINATED PUSHBUTTTON SWITCHES



.340" Round

Two pole, double throw contact mechanism and electri-Two pole, double throw contact mechanism and electrically independent lamp circuit, with separate terminals. Bulbs are replaceable from front of panel. Sliver plated current carrying parts; solder lug terminals. Rated 5 amps at 125 VAC and 28 VDC. Snap-In bezel fits in .850" sq. hole (must be used with square operator cap). Without bezel, the switch must be sub-panel mounted by 15½" bushing (mounting hardware included). Av. wt. 2 oz.

BASIC SWITCH
Bulb. cap and bezel must be ordered

Carel	866-1-			EA	CH	
No.	Stock Mfr's Type	Circuit	1-24	25- 49	50- 99	100- Up
		Momentary Push On-Push Off			2.72 2.72	

34" SQUARE OPERATOR CAPS

Stock	Mfr's Type	Color	EACH EACH					
No.			1-24	25.49	50-99	100-Up		
757-8226 757-8227 757-8228	SW53AA45 SW53AA46 SW53AA47	Red Green Amber	.18 .18 .18	.14 .14 .14	.12 .12 .12	.10 .10		

"HI-D" PUSHBUTTON SWITCHES

High-density, momentary-action switches for *3.32 limited space. Well-insulated housing. 1-pc. pushbutton and shaft. Integral silver-plated springs rated at 1 amp, 100 watts maximum, AC noninductive load. Button color: *red, tblack. Mount in *6" hole in panels up to *4.2" behind panel. Shpg. wt. 3 oz.



boiling pu	mon. on,	· · · · · ·	J U.					
Caroli	104-1-		C			EACH		
Stock No.	Mfr's Type	Action	Con- tacts	1- 9	10-	25- 49	50- 99	100- Up
933-1451 933-1453 933-1481 933-1483	*H-101 *H-103 †H-201	SPST SPDT SPST SPDT	1-A 1-C 1-A 1-C	1.20 1.35 1.20	.86 .97 .86	.66 .75 .66	.60 .68 .60	.48 .54 .48

"FF" PUSHBUTTON SWITCHES

Rugged flat-frame switches provide a simple, direct-acting momentary push-button contact. Fine-silver contacts rated 3 amps, 300 watts max., AC non-inductive. Insulated springs are form-free at flex point for long life. 1-pc. black button and shaft. Threaded



Halla, 78	Gia. X	78 long.	3 02					
933-6301	1001	SPST n.o.						
933-6303 933-6304		SPDT DPST n.o.		1.55				
933-6306	1006	DPDT	2-C	1.95	1.40	1.07	.98	.78
933-6309	1009	3PDT	3-6	2.80	2.02	1.54	1.40	1.12

"NF-LITE" PUSHBUTTON SWITCH



Switching and circuit functions at a glance. Lighting circuit independent of switching circuit. Fine-silver contacts rated 3 amps, 300 watts maximum, AC noninductive. Four color chips (red, amber, green, yellow) for changing color of pushbutton. Requires 1½ minimum, 1½ maximum behind panel; mounts in ½ hick. Has two Type C contacts. For use with 6-volt or 28-volt lamp (not included). Av. shpg. wt. 3 oz.

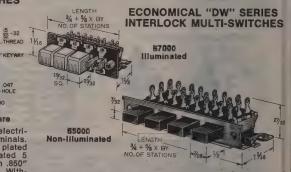
Stock	Mfr's	Action		EA	CH	
No.	Type	ACTION	1-9	10-24	25-49	50-Up
933-6606	4106	DPDT	2.48	1.98	1.51	1.38

"LITTEL-LITE" PUSHBUTTON SWITCHES



Same as above, with Illuminated round pushbutton. Clear plastic button and shaft illuminated by 6 or 28-volt lamp (not included). Rated 3 amps, 300 watts maximum noniductive load. Four color chips (red, amber, green and yellow). Supplied with mounting hardware. Shpg. wt. 3 oz.

No. Type Action tacts 1-9 933-5761 2118 SPST 1-A 2.03			
	10-24	25-49	50-Up
933-5763 2138 SPDT 1-C 2.37	1.62 1.90	1.24	1.13



SERIES 65000. Economical factory assembled multiswitch. Non-illuminated. With DPDT switch module per station. Double wipe bifurcated silver-plated brass contacts are rated 3 amps AC, 0.5 amps DC; 125 volts non-inductive load. Size, $1\%''_6$ depth behind panel; 34" length plus %'' for each station; $2\%''_{32}$ " high. Shpg. wt. 4 oz.

SERIES 67000. Factory assembled, Illuminated version of Series 65000. Features front-of-panel lamp replacement for added convenience. Accepts Industrial Type 327 and 328 lamps (not included). See lamp section of this catalog. Av. shpg. wt. 4 oz.

Stock	Mfr's	Sta-		EA	CH	
No.	Type	tions	1-9	10-24	25-49	50-Up
933-9260	65041K-206	4	4.50	3.60	2.75	2.50
933-9271	65061K-206	6	6.47	5.18	3.96	3.60
933-9281	65081K-206	8	9.40	7.52	5.17	4.70
933-9291	65101K-206	10	10.40	8.32	6.35	5.78
933-9324	67041K-506	4	6.02	4.82	3.69	3.36
933-9341	67061K-506		8.72	6.98	5.34	4.85
933-9351	67081K-506	8	11.42	10.16	6.99	6.35

ALLIED® "CONTROFLEX" RIBBON SWITCHES, MATS AND FOOT SWITCHES

Type CVP 1723 Flexible Area Switching Mat. Elements spaced on 2-3.4" centers. Water-resistant vinyl. "Mylar" insulation. Overlay with Masonite, carpeting or use exposed. Actuated by 5 lbs. pressure. 17x23x3%" thick. For 24 V circuit. 134 lbs. 966X1010. Ea. 15.62 5-9. Ea. 11.23 10-Up Ea. 10.67

Type 131-A Controllex Wired Ribbon Switches. 40 oz. sens. Normally open, momentary contact, 1 A at 117 VAC/28 VDC. Ready to use. Sleeve terminals, 18" lead. 34" wide, 36" thick. Gray.

Stock	Lgth.	th. Wt.,			
No.	Ft.	Oz.	1-4	5-9	10-Up
966-1080	1	3	4.65	3.75	3.00
966-1081	2	4	6.45	5.16	4.12
966-1082	- 5	7	11.78	9.42	7.53

Type 111 100-Watt Foot Switch. Controllex ribbon switches (momentary, normally open) seated in weather-proof molded flat pad. 2x5x¼" thick; can be taped or cemented to floor. Comes complete with 6-foot U.L. approved cord, Wt. 8 oz. 10-Up Ea. 3.55

966-1060. Ea. 5.58 5-9 Ea. 4.97 Type 121BP Sensitive Ribbon Switch. Same as at left, but 8-oz. pressure closes circuit. 1 A at 117 VAC/24 VDC. Sealed units have 18" leads. %," wide, 32" thick, Green.

Stock	Lgth.	Wt.,		EACH	
No.	Ft.	Oz.	1-4	5-9	10-Up
966-1070 966-1071	1 2	- 3 4	4.65 6.45	3.75 5.16	3.00 4.21

ALLIED FOOT SWITCHES FREE HANDS FOR WORK

Model 491-S "Compact." SPDT 10 ampere, 125-250 VAC contacts. Rugged steel housing. Black crackle finish. Rubber skidproof base.

Model 491-SC. Above. 6-ft. cord. 2-prong series plug. 491-SC3. 8-ft. cord and ground plug. Model 632-S. "Clipper." SPDT con. 20A, 125-150 VAC. Cast iron housing, rubber anti-skid pad. Model T-51-S. "Treadite". For low-current loads.

T-51-SC. Wired. 6-ft. cord, 2-prong series plug. SPDT. 7 A. 110-250 VAC. Rubber skidproof pad. T-51-SC3. Above, 6-ft. cord, grounded plug. Model 632-D. Same as Model 632-S. left, but maintains contact until again actuated.

Model L-2S "Lektro-Lok." Rated 15 A, 125 VAC

contacts on each side mechanical interlock, steel housing. On-off switching from foot pressure.

Stock	Mfr's	D	01 Ik	Wt.,				
No.	Type		Size, Inch	Lbs.	1-9	10-19	20-49	50-Up
842-6658 842-6659 842-6660 842-6680 842-6681	T51-S T51-SC T51-SC3 491-S 491-SC	Momentary cont. Above, 6' cord Above, 6' cord Momentary cont. Above, 6' cord	3½x2½x1 3½x2½x1 3½x2½x1 2½x2½x1½ 2½x2½x1½	1/4 1 1/4 1/4	5.02 8.05 9.72 6.17 9.67	4.02 6.44 7.78 4.94 7.70	3.29 5.38 6.29 4.01 6.45	3.01 4.94 7.78 3.68 5.90
842-6682 842-6690 842-6691 842-6634	491-SC3 632-S 632-D L-2S	Above, 8' cord Momentary cont. Maintains cont. Two-way	2%x2½x1½ 4½x3½x1½ 4½x3½x1½ 5x2½x1½	1½ 2 2½	12.07 14.42 12.67 10.55	9.66 11.54 11.48 8.40	8.07 9.47 10.66 7.05	7.40 8.67 9.98 6.45



MULTI-POLE SWITCHES



Reliable high-density, multiple-pole, double-throw bat handle toggle and momentary pushbutton switches. Unique design permits more switching circuits in less space. Gold-bonded fine silver contacts provide many years of service. Rated 150 watts, 3 amps make-or-break non-inductive; 500 watts, 5 amps carry. Life: 50,000 cycles at 20 cpm. Dielectric strength: 1000 V rms at 60 cyl per section. Temperature range, -55° to +85° C. Operate and Release time: less than 30 milliseconds. All contacts are Form C. 802/902 Series is for general purpose use. 902 Series is for low level applications (under 1 amp); has bifurcated contacts with additional wiping action. Shpg. wt. 6 oz. Connectors and tools for these switches listed on another page in this section.

SERIES 802 BAT-HANDLE TOGGLE SWITCHES

Stock	Mfr's	Action				
No.	Type		1-9	10-24	25-49	50-Up
774-0130 774-0134 774-0138 774-0142 774-0148	802-8C 802-12C 802-24C 802-36C 802-72C	8PDT 12PDT 24PDT 36PDT 72PDT	16.85 18.59 36.36 50.75 116.43	14.40 15.90 31.10 43.40 99.60	13.70 15.10 29.50 41.20 89.60	12.90 14.30 28.00 39.10 81.80

SERIES 902 BAT-HANDLE TOGGLE SWITCHES

774-0500 774-0501 774-0502 774-0503 774-0504	902-12C 902-24C 902-36C	24PDT 36PDT	18.59 36.36	14.40 15.90 31.10 43.40	15.10 29.50 41.20	14.30 28.00 39.10
//4-0504	902-726	72701	116.43	99.00	89.60	81.80

SERIES 803 MOMENTARY PUSHBUTTON SWITCHES

	3.10 10.48 1.71 10.00 3.23 11.30	9.50	9.00
--	--	------	------

CORD PUSHBUTTON SWITCHES





"CORDETTE" TYPE 921-K. Momentary-action pendant "CORDETTE" TYPE 921-K. Momentary-action pendant switch. Provides remote switching of instrumentation, control devices, etc. Fits comfortably in the hand. Highstrength molded plastic one-piece body is enclosed to protect switching contacts. SPST switch circuit with integral brass, hard-gold-plated 500-mA contacts; 50 watts max., AC non-inductive load. 6-ft. gray 2-cond. unshielded cable. Size: 11/16" wide, 211/16" long. Shpg. wt.

TYPE E903 CORD PUSHBUTTON SWITCH. Precision switch for remote control of recorders, lights, etc. Hole at one end for 2-cond. line; other end has non-locking spring-return pushbutton switch. Rated 250 mA non-inductive; 30 watts max. Contacts: 1-C. Red color. Wt.

Stock	Mfr's			EACH		
No.	Type	1-9	10-24	25-49	50-99	100-Up
933-6221 933-0823	921-K E903	4.73 2.50	3.15	2.89 1.38	2.63	2.40
333-0023	E903	2.50	1.50	1.30	1.25	1.00

ADAPT-A-SWITCH KIT

Everything you need to construct your own pushbutton switches. No special tools are necessary. Actua-tors are either momentary or alter-



Build 25,344 Lighted Push**button Switches**

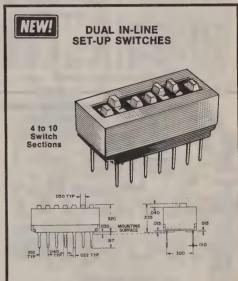
SPST LOCK SWITCHES

Type 81715-L. Fits panels to $\frac{9}{32}$ ". Sleeve diameter, $\frac{19}{32}$ ". Switch must be open to remove key. $\frac{13}{4} \times \frac{27}{32} \times \frac{21}{32}$ ". Type 81715-LE. Same as above, but key is removable in open or closed position. Key included with both types. Extra keys below. 4 oz.

					EACH					
Stock No.	Mfr's Type	Amp 125V	s @ 250V	1-9	10- 49	50- 99	100- Up			
717-0479 717-0480 717-0481 717-0482	81715-L Extra key for above 81715-LE Fxtra key for above	6	3	.37	.254	1.92 .18 1.92 .18	.16			







- For Mounting on PC Boards
- Standard .100 x .130" DIP Centers
- 4 to 10 SPST Slide Switches

Multiple section dual in-line set-up switches are designed for automatic insertion in PC boards. Available in seven styles, with 4 to 10 individual SPST slide switches in one compact, low profile package. Suitable for flow soldering in PC boards, or mounting with DIP sockets. Gold plated contacts; contact wiping on make and break. Fully enclosed switch design. Positive slide detent eliminates the possibility of accidental switching. Integral terminal and contact locked into thermoset bottom rails. Max. nonswitching rating: 100 mA at 50 VDC.

		No.	1	EA	CH	
Stock No.	Mfr's Type	Sec- tions	1-9	10- 24	25- 49	50- Up
659-2301	206-004	4	4.27	3.42	2.43	2.12
659-2305	206-005	5	4.72	3.78	3.09	2.58
659-2310	206-006	6	5.00	4.00	3.30	2.75
659-2315	206-007	7	5.45	4.36	3.60	3.00
659-2320	206-008	8	5.82	4.66	3.87	3.23
659-2325	206-009	9	6.27	5.02	4.17	3.48
659-2330	206-010	10	6.67	5.34	4.44	3.70

Rocker and Slide Switches

ALLIED® SUBMINIATURE ROCKER AND PADDLE LEVER SWITCHES

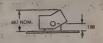




826-1209 231



DIMENSIONS, Inches										
Type	A	B	C							
SPDT	.260	.350	.505							
DPBT	.450	.410	.505							
3PDT	.652	.475	.571							
4PDT	.843	.475	.571							









MP1 Series Paddle Lever

SPDT and DPDT types are molded of glass-filled diallyl phthalate, for excellent mechanical and electrical strength and arc resistance. 3PDT and 4PDT types are high strength phenolic. Rocker and paddle levers have extra strength in the support column. A rivet-pivot pins the rocker or paddle through the support so it moves freely in its place, but is always aligned and will not wobble or work loose. Rated 5 amps nominal (resistive) at 125 VAC and 24 VDC; 3 amps at 250 VAC. Initial

		Rocker	Switc	hes	Paddle Le	EACH					
Cir- cuit	Action	Stock No.	Mfr's Type MR1-	Equiv.	Stock No.	Mfr's Type MP1-	Alco Equiv. MSD-	1-	10-24	25- 249	250- Up
SPDT SPDT SPDT SPDT	On-Off-On On-None-On On-None-On* On*-Off-On*	826-1200 826-1201 826-1202 826-1203	121 123 126 127	106E 106D	826-1224 826-1225 826-1227	121 123 127	106E 106E	2.30 2.00 2.30 2.45	1.78 1.56 1.78 1.89	1.65 1.45 1.65 1.75	1.44 1.26 1.44 1.53
SPDT DPDT DPDT DPDT	On-Off-On* On-Off-On On-None-On On-None-On*	826-1204 826-1205 826-1206 826-1207	131 221 223 226	206P 206N	826-1228 826-1229 826-1230 826-1231	131 221 223 226	206P 206N	2.45 2.90 2.50 2.90	1.89 2.22 1.93 2.22	1.75 2.05 1.78 2.05	1.53 1.78 1.56 1.78

MR1 Series Rocker Switches

contact resistance; 5 milliohms max., 3 VDC, 100 mA. Insulation resistance; 20,000 megohms minimum for diallyl phthalate bodies. Dielectric strength; 1000 volts rms at sea level. Life under load: 100,000 make-and-break cycles for suffix 123 types; 60,000 for others. Silver contacts and rockers. Silver plated brass center terminals. Paddle levers and rockers molded black nylon; red and white levers and rockers available. * Momentary position.

		Rocker Sw	itch	Paddle I	ever		EA	CH	
Circuit	Action	Stock No.	Mfr's Type MR1-	Stock	Mfr's Type MP1-	1-	10- 24	25- 249	250- Up
3PDT 3PDT 3PDT 3PDT	On-Off-On On-None-On On*-Off-On* On-Off-On*	826-1213 826-1214 826-1215 826-1216	321 323 327 331	826-1239	327	4.60 4.20 4.75 4.75	3.47 3.17 3.58 3.58	3.19 2.92 3.28 3.28	2.78 2.54 2.86 2.86
4PDT 4PDT 4PDT 4PDT 4PDT	On-Off-On On-None-On On*-Off-On* On-Off-On*	826-1217 826-1218 826-1220	421 423 431	826-1241 826-1243	421 427	5.80 5.20 5.95 5.95	4.35 3.91 4.45 4.45	3.99 3.59 4.09 4.09	3.48 3.13 3.56 3.56
4PDT 4PDT 4PDT	On-On-On On-On-On* On*-On-On*	826-1221 826-1222 826-1223	432 433 435	826-1245	432	6.35 6.60 6.75	4.75 4.92 5.05	4.35 4.50 4.63	3.80 3.33 4.03

ROCKETTE SWITCHES

SINGLE POLE

			A			EACH				
Stock No.	Mfr's Type	Circuit	Amps @		Termi- nals	1- 24	25- 49	50- 149	150- Up	
757-6176	8144K21A1M50	On-Off	15	10	Screw	1.46	.91	.76	.65	
757-6178	8144K21A1M52	On-Off	15	10	Spade	1.34	.83	.69	.58	
757-6175	8144K20A1M52	On-Off-On	15	10	Spade	1.51	.93	.78	.66	
757-6179	8144K22A1M52	On-Off	15	10	Spade	1.51	.93	.78	.66	
757-6190	8146K20A1M52	On*-Off-On*	15	10	Spade	1.78	1.10	.92	.78	
757-6210	8175K10E121T52	†On-Off-On	15	10	Spade	3.35	2.07	1.73	1.47	

			P		

757-6153	8142K21E6M50	On-Off	15	10	Screw	2.32	1.43	1.20	1.02
757-6154	8142K21E6M52	On-Off	15	10	Spade	2.06	1.27	1.06	.90
757-6152	8142K20E6M52	On-Off-On	15	10	Spade	2.52	1.56	1.30	1.11
757-6155	8142K22E6M52	On-On	15	10	Spade	2.52	1.56	1.30	1.11
757-6198	8148K20E6M52	On*-Off-On*	15	10	Spade	2.94	1.82	1.52	1.29

† indicates red-illuminated model. * indicates momentary contact.







2-Pole Illuminated

Slow-make and slow-break contact mechanism, with white serrated rocker. Quick-connect spade terminals are .250 $^{\prime\prime}$ wide. U.L./C.S.A. listed. Wt. 2 oz.

NEW LIGHTED ROCKETTE SWITCH (†)

8175K10E121T52. Identical in construction to standard Rockette, but with an integral light unit behind the rocker, which is internally wired to operate in conjunction with the switch. On-off-on circuit; red rocker; 110 VAC neon bulb.



HSL SERIES ROCKER SWITCHES

High current capacity and long life in a ½" wide case. Fully insulated 1-pc. unit; moisture, heat-resistant. Rated 10 A at 125 VAC, 6 A at 250 VAC. Life: over 100,000 operations. Tab term. accept .187 fast-on connectors or solder connection. Black.

Stock	Mfr's				CH		
No.	Туре	Action	1-9	1-9 10-24 25-49			
652-0450		SPST On-Off	.94				
652-0451	HSL-110D	SPDT On-On	1.05	.95	. 65	.57	

Snap-in front-of-panel mtg. in .500x.600" hole; spring clips lock in place on panels .062-.125" thick. Rated 5 A at 125 VAC. Snap-on nylon bezel. R Series is rocker actuated: LE, lever actuated, Black, U.L. listed.

Stock M	fr's			E/	ACH	
No. Ty	ype	Action	1-24	25-99	100-499	500-Up
652-0630 R1 652-0631 R2 652-0600 LE 652-0601 LE	A1 DPDT 1A1 SPDT	On-None-On On-None-On	2.90	1.85 2.30 1.85 2.30	1.35 1.65 1.35 1.65	1.23 1.53 1.23 1.53



MINIATURE PADDLE SWITCHES

Snap-in mounting. 5A @ 125 VAC. Mount in .040 to .150" thick panels; cut-out .610x .490". Solder lug terminals. Bezel for switch shown below. *Momentary.

TWO POLE SWITCHES

.709	1400			_		2		
Stock	Mfr's	Action	Color		E.	ACH		
No.	Туре	Action	COIO	1-9	10-24	25-99	100-Up	
757-0175	SC4BX181	On-Off-On	White		2.92	1.96	1.75	
757-0176 757-0179	SC4BX182 SC4BX185	On-Off-On On-Off-On	Red Black	3.07	2.92	1.96	1.75	
757-0184	SC4CX181	On-On	White	2.63	2.50	1,68	1.50	
757-0185	SC4XC182	On-On	Red	2.63	2.50	1.68	1.50	
757-0188	SC4CX185 SC4CX188	On-On	Black	2.63	2.50		1.50	
757-0189 757-0194	SC4EX182	On-On On-Off-On*	Gray	2.63	2.50		1.50	7
757-0197	SC4FX185	On-Off-On*	Black	2.63	2.50		1.50	0
757-0198	SC4FX188	On-Off-On*	Gray	3.06	2.92		1.75	
757-0203	SC4GX181	On-On*	White	3.06	2.92		1.75	
757-0204 757-0207	SC4GX182 SC4GX185	On-On*	Red	3.06	2.92		1.75	
757-0208	SC4GX188	On-On*	Gray	3.06	2.92	1.96	1.75	
757-0211	SC4HX181	On*-Off-On*	White	3.06	2.92	1.96	1.75	
757-0212	SC4HX182	On*-Off-On*		3.06	2.92		1.75	
757-0216	SC4HX185	On*-Off-On*	Black	3.06	2.92		1.75	



BEZELS FOR ABOVE SWITCHES

Stock	Mfr's	Color		EACH		
No.	Туре	Color	1-24	25-99	100-Up	
757-0330 757-0331 757-0332 757-0333	SW2AA11 SW2AA12 SW2AA15 SW2AA25	White Red Gray Black	.18 .18 .18	.13 .13 .13	.11 .11 .11	

ROCKER AND LEVER SWITCHES

Stock M	fr's			E/	ACH	
No. Ty	ype	Action	1-24	25-99	100-499	500-Up
652-0630 R1 652-0631 R2 652-0600 LE 652-0601 LE	A1 DPDT 1A1 SPDT	On-None-On On-None-On	2.90	1.85 2.30 1.85 2.30	1.35 1.65 1.35 1.65	1.23 1.53 1.23 1.53

PHASE II SLIDE SWITCHES

TWO-POSITION SLIDE SWITCHES

			EACH						
Stock No.	Mfr's Type	Action	1-	10- 24	25- 49	50- 99	100- Up		
933-9103 933-9105 933-9106 933-9107	46203LR 46203MR	SPST N.C. Locking SPDT Locking SPDT Momentary DPST Locking	.39 .36 .63 .45	.35 .29 .50 .42	.24 .25 .42 .39	.22 .23 .35 .35	.20 .21 .33 .33		
	46206MR	DPDT Locking DPDT Momentary DPDT Locking	.45 .77	.42 .61	.39 .47	.35 .43	.33		

THREE-POSITION SLIDE SWITCHES (Center Locking)

						0,
933-9130	46311LDR SPTT Lock/Lock	.63	.50	.39	.35	.32
				.41		
933-9196	46313TDRIDPTT Lock/Mom.	1.72	.54	.44	.40	.37

TWO-POSITION ROCKER SWITCHES

933-9187 51206LR DPDT Locking .99 .66 .61 .55 .44



Reliable, economical operation in a wide variety of On-Off and function indication uses. Exclusive double-wipe action prevents oxidation, ensures good electrical contact. Positive-action detent tab holds slide at position. Terminals: Silver-plated brass. Contacts: silver-plated brass alloy. 1%" long, 1%2" wide, 1½" mounting centers. Rated 0.5 amp DC; 3 amps AC, 125 volts noninductive lead 4.7;

MINIATURE PC SLIDE SWITCHES

Occupy less space for direct or overhead mtg. Models with suffix "R" have right angle mtg. terminals. Contacts, silver or (*) gold plated (2 microns). Rated .3A @ 125 VAC. Type MSS-22 has anti-tease

design; rated 2A @ 120 VAC. Gold on nickel on silver plated brass contacts. Long life: over 250,000 operations. Low resistance; positive wiping action. .500 x .305". Wt. 4 oz.

			EACH						
Stock No.	Type MSS-	Action	1-	10- 24	25- 49	50- 99	100- Up		
700-5720 700-5721 700-5727	1200RG*	SPDT Right Angle SPDT Right Angle DPDT Upright			.55 .55 .65	.48 .48 .59	.45 .40 .55		
700-5734 700-5742		DPDT Long Handle 4PDT Upright	1.28 1.20	1.02	.72 .68	.63	.60 .57		
700-5701	22	SPDT 2-circuit	2.20	1.75	1.17	.88	.73		







MSS-2250R

Lever and Rotary Switches

LEVER TYPE SWITCHES

Miniature telephone type.
3A, 200W max., AC non-inductive. Long life nickel-silver springs. Detent guide. Mount in 1%2" hole; 21%" behind panel.

* Positions 1 and 2 are identical contact assemblies. 1 lb.

SERIES 41000 "LT"

Mir's Type	Stoc	k No.	Con-	EACH			
	Locking	Non- Locking	tact-	1-	10- 24	25- 49	50- Up
	933-8907 933-8920	933-8921	2-C 4-C	5.00 6.75	3.33 4.50	3.05 4.13	2.78 3.75

THREE	E-POSITI	ON SW	ITCHES

SERIES 3000 "LEV-R" SWITCHES

Require half the space normally needed for lever switches. Frame bushing and shaft of nickel-plated brass. Two-posi-tion type. Fine-silver contacts rated 3 A, 300 W max., AC non-



inductive. Nonlocking type has spring return. All are %" wide; requires 21%4" behind panel, 1½2" mtg. hole. With locknut and screw-on black knob. Has 1¾4" mtg. bushing; mounts in panels up to ½2" thick. Av. shpg. wt. 3 oz.

Mfr's	Stoc	k No.		Con-		EACH 1- 10- 25- 50-			
Туре		Nonlock- ing Type		tact Form	1-9	10- 24	25- 49	50- Up	
3003	933-6501 933-6505 933-6511	933-6512	SPST SPDT DPDT	1-A 1-C 2-C	2.16 3.53 3.10	1.71		1.43	

LOW-COST LEVER-ACTION PHENOLIC SWITCHES

Nylon rotor, silver-plated brass clips and contacts, 30° indexing.

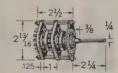
Breakdown of 1000 VAC rms. Contacts rated 1.5A @ 28 VDC; 230 mA @ 115 VAC Contact resis: .0035 ohm. Min. life, 25,000 cycles. 6-32 tapped holes on 156° ctrs. Phenolic insul. * tive; † spring return; ‡ pos. and spring return. 4 oz. 115 VAC rms.

			No.		EACH				
Stock No.	Mfr's Type	Total Poles	of Pos.	Short- ing	1-9	10- 24	25- 99	100- Up	
747-1452 747-1454 747-1455 747-1467 747-1456 747-1459	1452 1454 1455 1467 1456 1459	2° 2° 2† 2‡ 4† 4°	3 3 3 2 2	Yes No No No Yes Yes	2.36 2.36 2.36 2.36 2.63 2.63	1.57 1.57 1.57 1.57 1.75 1.75	1.42 1.42 1.42 1.42 1.58 1.58	1.34 1.34 1.34 1.34 1.50	

ROTARY SWITCHES FOR EVERY APPLICATION

JV-9000 HEAVY-DUTY ROTARY POWER SWITCHES

ramic switches for transmitters, industrial and commercial con-



and commercial controls, and test gear. Rated 9A at 110 VAC (resistive); 30 A at 5 VDC; .015 A at 2500 VAC rms. Breakdown, 3000 V rms. 20° positive indexing; adjustable stop. All metal parts except clips, contacts and index spring are cadmium plated. Coin silver contacts. Non-shorting. Bushing, %" x 32 thread, %" long. Flatted shaft, ¼ x 2½" from mounting surface. ½" thick ceramic sections; 1" between sections. Wafer size, 2 x 2½%". Av. wt. 4 oz.

Stock	Туре		Total	No.		EACH	
No.	JV-	Sec.	Poles	Pos.	1-9	10-24	25-Up
747-9001	9001	1	1	2-17	11.39	9.54	9.07
747-9033	9033	1	2	2-8	11.39	9.54	9.07
747-9005	9005	2	2	2-17	18.85	15.80	15.01
747-9003	9003	1	3	2-5	11.39	9.54	9.07
747-9035	9035	2	4	2-8	18.85	15.80	15.01
747-9013	9013	4	4	2-17	33.82	28.35	26.00
747-9007	9007	2	6	2-5	18.85	15.80	15.01
747-9037	9037	3	6	2-8	26.35	22.09	20.98

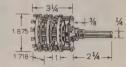


PS-100 SUBMINIATURE CERAMIC SWITCHES

Ultra-small, yet offer the utmost dependability for band switching, transistor circuits, aircraft instrumentation, etc. Rated .550 A @ 28 VDC, 170 mA at 115 VAC (resistive). Contact resistance: 5 milliohms initial. Rotational life: 25,000 cycles min. Ceramic insulation; 750 VAC breakdown. Clips and rotor contacts are silver plated brass. Positive 30° indexing; fixed stop. Size: 1" dia. Bushing, ¼" dia. x ¼" long. Shaft, ½" dia. x 1¼" long. Knob, nut, lockwasher included. Wt. 4 oz.

Non-Shor	ting			No.	EACH				
Stock No.	Type PS-	Sec.	Total Poles	of Pos.	1-4	5- 9	10- 24	25- Up	
747-1102 747-1105 747-1109 747-1111	103 105 109 111	2 1 1 2	2 2 3 4	11 5 3 5	9.31 7.42 7.42 9.31	6.20 4.95 4.95 6.20	5.51 4.46 4.46 5.57	5.31 4.25 4.25 5.31	

SERIES 2500 CERAMIC ROTARY SWITCHES

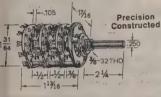


SWITCHES

1% x 1%" SECTIONS.
Silicone-treated for band change and tapswitch use. Breakdown, 1500 V rms. All rated 2.75 A @ 15 VDC; 350 mA @ 115 VAC, make and break, resistive. Front plate, 12½" x 1%" dia. ½" from plate and between sections for 1- and 2-sections switches, 1" spacing for others. Bushing, %" dia. x %" long. Shaft, ¼" dia. x 2¼" long. Positive 30° indexing; 2 adj. stops. Mtg. nut, lockwasher, 1¼" black pointer knob. 3 oz. per section.

Non-Shor	rting		No.	No.		EA	CH	
Stock	Mfr's	Total	of	of	1-	10-	50-	100-
No.	Type	Poles	Pos.	Sec.	9	49	99	Up
747-2501 747-2503 747-2505 747-2508 747-2511	2501 2503 2505 2507 2511	1 1 2 3 2	2-6 2-11 2-5 2-3 2-6	1 1 1 1 2	4.38 4.38 4.38 4.38 6.22	2.92 2.92 2.92 2.92 4.15	2.62 2.62 2.62 2.62 3.74	2.50 2.50 2.50 2.50 3.56
747-2513	2513	2	2-11	2	6.22	4.15	3.74	3.56
747-2515	2515	4	2-5	2	6.22	4.15	3.74	3.56
747-2517	2517	6	2-3	2	6.22	4.15	3.74	3.56
747-2523	2523	3	2-11	3	6.22	4.15	3.74	3.56
747-2525	2525	6	2-5	3	7.90	5.33	4.80	4.58

PA-2000 SERIES MINIATURE CERAMIC SWITCHES-11/2 x15/6" SECTIONS



Excellent RF characteristics. Feature maximum voltage flash-over points, high-Q, low-loss ceramic bodies; minimum intercircuit capacity; Insulated front-back clips. Positive 30° indexing; adjustable stop or continuous rotation, except * 60° indexing. All rated 2.75 A @ 15 VDC, 230 mA @ 115 VAC. ¼" diameter shafts are 2½" long. Mount in single hole with ½".32 NEF-2A bushing, ¾" long. With mtg. nut, lockwasher, knob. Bulk packaging (quantities of 100 to 300) available on special order; less knobs. Wt. 3 oz./section.

	Non-Sh	orting	Shorti	ng	Total	No.	Sec-		EAG	CH .	
	Stock No.	Type PA-	Stock No.	Type PA.	Poles	Pos.	tions	1-	10- 49	50- 99	100- Up
	747-2001 747-2003 747-2005 747-2007 747-2009	2001 2003 2005 2007 2009	747-2000 747-2002 747-2004 747-2006 747-2008	2000 2002 2004 2006 2008	1 2 2 3 3	2-12 2-6 2-12 2-5 2-12	1 2 1 3	4.08 4.08 5.77 4.08 7.35	2.71 2.71 3.84 2.71 4.90	2.45 2.45 3.45 2.45 4.41	2.33 2.33 3.29 2.33 4.21
	747-2011 747-2013 747-2015 747-2017 747-2019	2011 2013 2015 2017 2019	747-2010 747-2012	2010 2012	4 4 5 5 6	2-6 2-12 2-3 2-12 2	2 4 1 5 1	5.77 8.83 4.08 10.56 4.08	3.84 5.88 2.71 7.05 2.71	3.45 5.30 2.45 6.34 2.45	3.29 5.05 2.33 6.04 2.33
	747-2021 747-2023 747-2025 747-2027 747-2029	2021 2023 2025 2027 2029	747-2026	2026	6 6 8 9	2-5 2-6 2-12 2-6 2-5	2 3 6 4 3	5.77 7.35 12.28 8.83 7.35	3.84 4.90 8.18 5.88 4.90	3.45 4.41 7.36 5.30 4.41	3.29 4.20 7.02 5.05 4.20
1	747-2031 747-2033 747-2035 747-2037 747-2039	2031 2033 2035 2037 2039			. 10 . 10 . 12 . 12 . 15	2-3 2-6 2 2-6 2-3	2 5 2 6 3	5.77 10.56 5.77 12.28 8.31	3.84 7.05 3.84 8.18 5.54	3.45 6.34 3.45 7.36 4.99	3.29 6.04 3.29 7.02 4.75
7	747-2041 747-2043 747-2045	2041 . 2043* . 2045* .			. 18 . 1 . 2	2 2-6 2-6	3 1 2	8.31 3.70 5.09	5.54 2.46 3.84	4.99 2.22 3.45	4.75 2.11 3.29



Miniature ceramic rotary switches. $1\%_{32}''$ dia. Positive 30° indexing. Adjust. stop except * fixed. 450 mA @115 VAC. 51/2 A @ 12 VDC. Knob, lockwasher, nut incl. Wt. 4 oz.

SHORTING TYPES

			No.	o. No EACH		ACH		
Stock	Type	Total	of	of	1-	10-	50-	100-
No.	PA-	Poles	Pos.	Sec.	9	49	99	Up
747-6000	6000	1	2-11	1 1	5.28	3.52	3.16	3.02
747-6002	6002	2	2-5		5.28	3.52	3.16	3.02
747-6006	6006	3	2-3		5.28	3.52	3.16	3.02

NON-SHORTING TYPES

PA-2000 CERAMIC SECTIONS

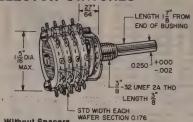
Excellent quality ceramic sections for use in assembly of special switches for commercial and industrial applications. Designed for use with index assemblies PA-300, PA-301 and PA-302 listed on following page. † Has one off and up to 9 shorting positions. Shpg. wt. 2 oz.

Shorting Non-Shorti		rting		No.		EACH				
Stock No.	Mfr's Type	Stock No.	Mfr's Type	Total Poles	of Pos.	1- 9	10- 24	25- 99	100- Up	
747-0100 747-0102 747-0104 747-0108 747-0112	PA-0 PA-2 PA-4 PA-8 PA-12†	747-0101 747-0103 747-0105 747-0109	PA-1 PA-3 PA-5 PA-9	1 2 3 6 1	2-12 2-6 2-5 2 2-10	2.04 2.04 2.04 2.04 2.04	1.36 1.36 1.36 1.36 1.36	1.22 1.22 1.22 1.22 1.22	1.17 1.17 1.17 1.17 1.17	

HOW TO SELECT A ROTARY SWITCH

- STEP 1: Determination of Switching Sequence. A simple line drawing of the switching sequence should be made first. Then, this switching diagram can be converted into stator clips and rotor contagts of the proper length, configuration and location to accomplish the switching
- STEP 2: Selection of Section Type. Refer to the catalog and select the section type which offers the proper dlameter, materials, switching positions,
- STEP 3: Selection of Index Mechanism. Refer to the family of indexes which are available for use with your section. Pick the one which meets your requirements of rotational life, indexing angle, number of positions, materials and indexing action (positive or spring return).
- STEP 4: Determination of Materials and Finishes. Specify materials and finishes required for your application.
- STEP 5: Determination of Mechanical Considerations. These involve such factors as bushing length, locating lug location, shaft length and knob end detail, section spacing, supplementary brackets and shields, etc.

Without Spacers



COMPLETE ROTARY SWITCHES

Non-Sho Typ		No. of		No.	EACH				
Stock No.		Total	Sec- tions	of Pos.	1- 9	10- 24	25- 49	50- Up	
659-0205	T205	1	1	2-12	2.50	2.00	1.60	1.40	
659-0206	T206	2	1	2-6	2.50	2.00	1.60	1.40	
659-0208	T208		4	2-3	2.50	2.00	1.60	1,40	
659-0216	T216	2	4	2-6	4.25	3.20	2.50	2.25	
659-0225	T225	3	3	2-12	5.75	4.60	3.48	3.27	
659-0226	T226	3	6	2-6	5.63	4.50	3.40	3.20	

WAFER SWITCH SECTIONS

659-0006 659-0008	1		1.13 1.13	1.00 1.00	.77 .77	.72 .72

Compact industrial rotary switches have machine molded-in terminals for exact, immovable and permanent positioning in the stator. Rugged molded stator assures long operating life. Soldering heat can't loosen terminals; natural design barrier prevents solder flow into circuit elements. Long-lift contacts are evenly silvered. Stator contacts integral with terminals. Double-wiping, self-cleaning rotor contacts. Detents: Index plate 30° between positions with one fixed and one adjustable stop. Materials: Glass alkyd resin stator; polycarbonate (Lexan) rotor. Laminated silver movable contacts. Terminals and stator are silver plated brass. Size: 1½6″ dia. x 3¾6″ thick body with one section; add ¾6″ space and ¾6″ section thickness for each additional section. Shaft 1¾6″ long x ¾6″ dia. Bushing ¾ x ¾6″. Hardware incl. 6 oz.

SHAFT AND 30° DETENT ASSEMBLIES

Standard types with life of 25,000 complete cycles.

Stock	Mfr's	No. of	Suggested	Rear	EAC		CH	
No.	Туре	Positions	No. Secs.	Shaft L.	1-9	10-24	25-49	50-Up
659-0080 659-0081	T80 T81	2-12 2-12	1-3 4-6	19/32" 215/16"	2.08 3.23	1.35 2.15	1.10 1.85	1.00 1.65

SEALED SWITCH KITS

659-2011. Type SSK-1. Enclosed detent construction seals both wafer sections and detent mechanism of switch against dust, dirt and moisture.

1-9 Each 3.20 10-24 Each 3.00 25-49 Each 2.50 50-Up Each 2.10

659-2012. Type DSWK-1. Open detent construction seals and protects wafer sections of selector switch against dust and dirt.

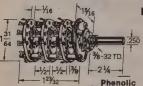
1-9.....Each 1.75

10-24.....Each 1.50

25-49.....Each 1.20

50-Up.....Each 1.10

50-Up..... Each 1.10

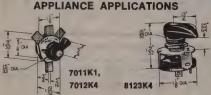


30° Indexing; adjustable stop. 1½ x 1¾6" dla.; shaft 2¼" long. 2.75 amps @ 15 VDC; 230 mA @ 115 VAC. Index assemblies and hardware identical to PA-2000 Series. Phenolic insulated and precision made. With knob, nut, lockwasher. Shpg. wt. 3 oz.

PA-1000 MINIATURE PHENOLIC SWITCHES-11/2 x 11/4" SECTIONS

			L.7			- LA	Cn .		
Stock	Type	Total	No.	Sec-	1-9	10-	50-	100-	
No.	PA-	Poles	Pos.	tions		49	99	Up	
747-1001 747-1003 747-1005 747-1007 747-1009	1001 1003 1005 1007 1009	1 2 2 3 3	2-11 2-5 2-11 2-3 2-11	1 2 1 3	3.06 3.06 4.38 3.06 5.56	2.04 2.04 2.92 2.04 3.69	1.84 1.84 2.62 1.84 3.32	1.76 1.76 2.50 1.76 3.17	
747-1013	1013	4	2-5	2	4.38	2.92	2.62	2.50	
747-1015	1015	4	2-11	4	6.47	4.31	3.88	3.69	
747-1017	1017	5	2-11	5	7.61	5.07	4.57	4.35	
747-1019	1019	6	2-3	2	4.38	2.92	2.62	2.50	
747-1021	1021	6	2-5	3	5.56	3.69	3.32	3.17	
747-1025	1025	8	2	2	4.38	2.92	2.62	2.50	
747-1029	1029	12	2	3	5.56	3.69	3.32	3.17	
747-1031	1031	10	2-5	5	7.61	5.07	4.57	4.35	

ROTARY SWITCHES FOR ALL



Excellent for use in air conditioners, fans, test equipment, control panels, instruments, other equipment. Types 7011 and 7012 rated 5 A @ 125 V; 2 @ 250 V AC-DC; screw term. Type 8123 rated 3 A @ 125 VAC; solder lug term. All have % "threaded bushing. 4 oz.

	-	-		EA	CH	
Stock No.	Mfr's Type	Action	1-9	10- 49	50- 99	100- Up
757-3001 757-3010 757-6110	7012K4	2 on, 1 off 3 on, 1 off 3 on, 1 off	3.06	1.90	1.698	1.415

PA-3000 AND PA-4000 SERIES SWITCHES



18- and 24-position switches using 18- and 24-position switches using hill-and-dale index mechanism. Breakdown, 1000 VAC rms. Sections are 2\% '' high, \% '' thick. PA-3000 Series: 2.25 A @ 28 VDC, 0.350 A @ 115 VAC; 20° indexing; 2\% 4'' wide. PA-4000: 1.5 A @ 28 VDC, 0.230 A @ 115 VAC; 15° indexing; 13\% 2'' wide. Wt. 4 oz.

NON-SHORTING TYPES

						EA	CH	
Stock No.	Type PA-	Sec- tions	Total Poles		1- 9	10- 24	25- 99	100- Up
747-3001	3001	1	1	2-17	3.30	2.21	1.98	1.89
747-3003	3003	2	2	2-17	4.77	3.16	2.89	2.71
747-3005	3005	3	3	2-17	6.22	4.15	3.74	3.56
747-3007	3007	4	4	2-17	7.58	5.05	4.56	4.34
747-4001	4001	1	1	2-23	3.51	2.34	2.11	2.01
747-4003	4003	2	2	2-23	5.17	3.44	3.10	2.95
747-4005	4005	3	3	2-23	6.75	4.50	4.04	3.86
747-4007	4007	4	4	2-23	8.07	5.39	4.85	4.62

SHORTING TYPES													
747-3002	3002	2	2	2-17	5.17	3.44	3.10	2.95					
747-4000	4000	1	1	2-23	3.51	2.34	2.11	2.01					
747-4002	4002	2	2	12.23	5.17	3.44	3.10	2.95					

O41" DEEP x O68" WIDE KEYWAY

MIL-S-6807 POWER **ROTARY SWITCHES**

Adjustable stop; or can be used with continuous rotation. Rated 5 amps at 28 VDC and 115 VAC. Non-shorting, with maximum of eight positions; 45° Indexing angle. Screw terminals, ½" shaft length, ½" bushing. With hex nuts, locking ring and lockwasher for mounting. Military Numbers: MS25002-1 thru MS25002-6 (1 thru 6 poles and decks). Av. wt. 4 oz.

Stock	Mfr's	Poles		EA	CH	
No.	Туре	(Decks)	1-24	25-49	50-99	100-Up
757-3441	7261K14		12.07	8.42	6.25	5.31
757-3454	7262K14	2	18.36	12.81	9.50	8.08
757-3462	7263K13	3	24.60	17.16	12.74	10.83
757-3471	7264K10	4	30.84	21.51	15.97	13.58
757-3491	7266K6	6	44.39	30.96	22.98	19.54

SPST AND DPDT POWER SWITCHES





Ideal for instrument, control panel, appliance uses, plus a wide variety of other applications. Type 1561-B rated 3 amp @ 250 volts. Type 1575 rated 1 amp @ 250 volts—3 amp @ 125 volts. Type 81715 rated 3 amp @ 250 volts—6 amp @ 125 volts. Have shanks 11/22" diameter, 3/6" long with solder lugs. U.L. Recognized. 2 oz.

ì						EA	CH	
	Stock No.	Mfr's Type	Fig.	Action	1- 9	10- 24	25- 99	100- Up
	717-0115 717-0120 717-0478 717-0484	1561-B 1575 81715 81727	B B A	SPST DPDT SPST DPDT	1.84 3.51 3.11 4.54	1.24 2.38 2.12 2.71	.97 1.82 1.50 1.92	.83 1.55 1.31 1.64

SERIES 1400 PHENOLIC ROTARY SWITCHES



Non-Sho	orting		No.	No.	EACH						
Stock No.	Mfr's Type	Total Poles	of Pos.	of Sec.	1-9	10- 49	50- 99	100- Up			
747-1401 747-1403 747-1405 747-1411	1401 1403 1405 1411	1 1 2 2	1 2-6 1 2-11 2 2-5 2 2-6		3.89 3.89 3.89 4.75	2.60 2.60 2.60 3.16	2.34 2.34 2.34 2.85	2.23 2.23 2.23 2.71			
747-1413 747-1415 747-1421 747-1425	1413 1415 1421 1425	2 4 3 6	2-11 2-5 2-6 2-5	2 2 3 3	4.75 4.75 5.65 6.06	3.16 3.16 3.75 4.02	2.85 2.85 3.39 3.64	2.71 2.71 3.22 3.45			
747-1427 747-1429 747-1431	1427 1429 1431	4 4 8	2-6 2-11 2-5	4 4 4	6.97 6.97 6.97	4.63 4.63 4.63	4.17 4.17 4.17	3.98 3.98 3.98			

SERIES 1400 AND 2500 INDEX ASSEMBLIES

Dependable assemblies for use with Series 1400 and 2500 sections. 30° positive index with adjust. stops. Includes one index, one P-120 pointer knob, hardware. 2 oz.

		No.		EA	CH	
Stock	Mfr's	of	1-	10-	50-	100-
No.	Type	Sec.	9	49	99	Up
747-0270	P-270	1-3	2.43	1.63	1.46	1.39
747-0271	P-271	3-5	2.90	1.93	1.74	1.65

PA-300 SERIES SHAFT/INDEX ASSEMBLIES

Hardware for assembling miniature switches. Each contains a 30° PA Index assembly, P-120 pointer knob, adjustable stop plate, assorted spacers, tie bolts, nuts, fiber spacer washers, lock washers, instructions. 3 oz.

Stock	Type	Shaft	Sec-		EA	СН	
No.	PA-	Lgth.	tions	1-9	10-24	25-99	100-Up
747-0300 747-0301	300 301	2"	1-3 4-6	2.20 2.92	1.48 1.95	1.33 1.76	1.27 1.67
747-0302	302	6"	7-9	3.81	2.54	2.28	2.17

140 • ALLIED

Rotary and Thumbwheel Switches

PSA SERIES SUBMINIATURE ROTARY SWITCHES

115/8+ 3/8

+ 3/8

GENERAL PUR-

POSE ROTARY

TYPE 1451. Four-pole, two-position. Phenolic-insulated. Breakdown: 1000 VAC RMS. Bushing, %" dia, x %". Shaft, 214" long. 1.75 A @ 28 VDC; 350 mA @ 115 VAC. With knob. Momentary action. 3 oz. 747-1451. 1-9 Each 3.72 10-24 Each 2.48 25-99... Each 2.23 100-Up... Each 2.12

GENERAL. PURPOSE SWITCHES

Stock No.	Mfr's Type	Description
747-1460	1460*	SPDT phono-radio
747-1461	1461*	SP 3-pos. selector
747-1462	1462*	DPDT bandswitch
747-1464	1464	DPDT momentary
747-1472	1472	DP-3-position

1-9.... Each 1.68 25-99... Each 1.02 10-24.... Each 1.08 100-Up... Each .97 Non-Shorting Stock No. | Type EACH Total Poles 10-49 50-99 100-Up PSA-201 PSA-203 PSA-207 4.24 4.24 4.24 4.03 4.03 4.03 747-0201 747-0203 747-0207 7.08 747-0209 747-0211 747-0221 PSA-209 PSA-211 10.62 8.50 8.50 6.37 6.05 7.08 .31 .05 PSA-221 PSA-223 7.08 747-0223

Diallyl phthalate switches offer subminiature size, yet have same electrical rating as much larger switch. Positive 30° indexing; adjustable stops. Two-ball star-wheel lateral thrust construction. Sections .080″ thick, spaced ½2″. Clips and rotor contacts silver-plated brass. Rated 0.55 A @ 2 VDC; make and break, 170 mA @ 115 VAC. Capacity: amps. ¾2″x¾2″ bushing; ¼2″x1¾2″ round shaft.



SWITCHES

DIAL PLATES

These dial plates are for 11/4" base switches 3100J and 3200J. Etched aluminum. Black background. 111/4" diameter plate. Mounting hole has 1/16" diameter.



30° SPACING FOR 1¼" BASESWITCHES

Mfr's Type	Marking	Mfr's Type	Marking
372 373 374 375 376	1 to 2 1 to 3 1 to 4 1 to 5 1 to 6	382 383 384 385 386	1 to 12 Off 1 to 3 Off 1 to 4 Off 1 to 5 Off 1 to 6
377 378 379 380 381	1 to 7 1 to 8 1 to 9 1 to 10 1 to 11	387 388 389 390	Off 1 to 7 Off 1 to 8 Off 1 to 9 Off 1 to 10
*851-0>	(XX	. 47.1	Each .30

SERIES 3100J AND 3200J SINGLE-SECTION SWITCHES

Enclosed, low-voltage switches. For use in tone control, band selector and antenna switching circuits. Phenolic resin insulation. Have %" threaded bushing %" long. ¼" diameter shaft 2" long. Shafts are grooved at popular lengths for easy cutting. All 11%" base types have adjustable stops. Break down rating is 500 volts, AC or DC. Cur-



volts, AC of Dc. Culterent ratings (resistive load): ,125 amp at 300 VDC; 3 amps at 6 VDC; 2 amp at VAC. Bar knob and nut. Shpg. wt. 4 oz.

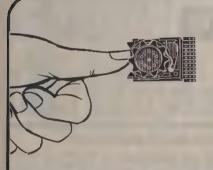
1,788

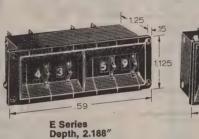
L 100

Short	ing ,	Non-Sho	orting	Poles Positions		Base	EACH				
Stock No.	No. Type		Mfr's Type			Dia. (Inches)	1- 9	10- 24	25- 49	50- Up	
851-1415 851-1412 851-1423 851-1426 851-1434	3115J 31112J 3123J 3126J 3134J	851-1485 851-1472 851-1493 851-1496 851-1534	3215J 32112J 3223J 3226J 3234J	1 2 2 3	5 12 3 6 4	1¼ 1¼ 1¼ 1¼ 1¼	1.60 1.60 1.60 1.60 1.65	1.28 1.28 1.28 1.28 1.32	.96 .96 .96 .96	.91 .91 .91 .91	
851-1443	3143J	851-1542 851-1543 851-1477 851-1499 851-1536	3242J 3243J 32117J 3229J 3236J	4 1 12 3	2 3 17 9 6	11/4 11/4 111/16 111/16 111/16	1.65 2.45 2.45 2.60 2.60	1.32 1.96 1.96 2.08 2.08	1.08 1.08 1.48 1.47 1.55	.94 .94 1.38 1.39 1.47	

*TO ORDER DIAL PLATES: Fill in Mfr's Type No. in place of XXX in 851-OXXX, Example: Type 372 becomes 851-0372.

THUMBWHEEL SWITCHES







IF Series Depth, 1.52 "

- Available with Decimal or BCD Outputs, with or without Complements
- Three Series of Switches for Either Front or Rear Mounting
- Preassembled into Banks Containing 3, 4 or 6 Switches

Designed for applications in computers, test equipment, panel controls, automatic tooling machines, business machines, etc. Choice of decimal, binary coded decimal (BCD) with or without complements. For simplification of ordering, only decimal and BCD with complement switches are listed as these types can also be used for straight BCD. Three

series of switches are available: two front mounting and one rear mounting. These switches have been preassembled into banks containing 3, switches; price listed is for a complete assembly. Complete electrical and physical specifications for each series are shown at right. Contact Allied for price and delivery of special configurations.

SM SERIES-FRONT MOUNTING

Descrip-	Switches	Stock		EACH Swi		Switches Stock		EACH		Switches Stock		EACH			
tion*	in Bank	· No.	1-9	10-99	100-Up	in Bank	No.	1-9	10-99	100-Up	in Bank	No.	1-9	10-991	00-Up
Decimal	3	816-1020				4	816-1021	13.80	12.75	12.11		816-1023			
BCD/Comp.	3	816-1030	15.95	14.75	14.01	14	816-1031	20.30	18.75	17.81	6	816-1033	28.95	26.75	25.41

IF SERIES-FRONT MOUNTING

Descrip-	Switches	Stock		EACH		Switches	Stock		EACH		Switches	Stock		EACH	
tion*	in Bank	No.	1-9	10-99	100-Up	in Bank	No.	1-9	10-99	100-Up	in Bank	No.	1-9	10-99	00-Up
Decimal	3	816-1001					816-1002								
BCD/Comp.	3	816-1010	18.40	17.00	16.15	4 :	816-1011	23.55	21.75	20.66	6	816-1013	33.85	31.25	22.69

E SERIES-REAR MOUNTING

		Switches	Stock	x -111	EACH		Switches	Stock		EACH		Switches	Stock		EACH
m.	tion*	in Bank	No.	1-9	10-99	100-Up	in Bank	No.	1-9	10-99 1	00-Up	in Bank	No.	1-9	10-99 100-Up
	Decimal	3	816-1060					816-1061							20.00 19.00
	BCD/Comp.	3	816-1070	15.95	14.75	14.01	4 "	816-1071	20.60	19.00 1	18.05	6	816-1073	29.80	27.50 26.13

Both decimal and BCD/complement types are 10-position. PANEL CUT DIMENSIONS

Series	Bank of 3 Switches	Bank of 4 Switches	Bank of 6 Switches
1F	1.976" x 1.900"	2.476" x 1.900"	3.476" x 1.900"
SM	1.570" x 1.220"	1.882" x 1.220"	2.506" x 1.220"
E	1.900" x .970"	2.400" x .970"	3.400" x .970"

1/8-IN. MOUNTING HOLE DIMENSIONS REAR MOUNTING-CENTER-TO-CENTER

Series	Bank of 3 Switches	Bank of 4 Switches	Bank of 6 Switches
E	2.09" x .97"	2.59" x .97"	3.59" x .97"

ELECTRICAL **SPECIFICATIONS**

Maximum Power: 24 watts/switch, 12 watts/energized output.

Maximum Current: 0.5 A (refer to power rating).

Maximum Voltage: 200 V DC or rms (refer to power rating).

Insulation: 1000 megohms minimum dry.

Contact Resistance: 0.1 ohm max-

Life: 1,000,000 operations for IF series; 800,000 operations for

PHYSICAL SPECIFICATIONS

Contact Material: Stator, 0.0002" ontact Material: Stato, J. Good-hard gold over 1-oz. copper on epoxy impregnated paper to MIL-P-22324 and MIL-P-13949 and/or glass fibre as per MIL-P-13949 GF. Rotor, silver gold alloy on beryllium copper.

Molding Material: ABS, except IF series, polycarbonate

Operating Temperature: ABS units, -10° to +90°C. Polycarbonate, -65° to +100°C.

Color: Black, White legend,

Terminations: Solder pad.

Precision-Engineered Snap-Action Switches



































SNAP ACTION SPDT SWITCHES WITH MICRO EQUIVALENTS

Popular replacements for Microswitch SPDT types. Feature clip-on covers, constant-stress rolling spring snap-action for long life. Operating force is given in ounces. All switches have screw terminals, except as indicated below. All are U.L. Component Program-Recognized and C.S.A. Listed. Av. wt.

STANDARD-DUTY TYPES

Rugged switches for general purpose industrial use. Uniform operating characteristics, excellent repeatability, low traverse time, high contact pressure. Contacts rated 15 amps, 120/240/480 volts AC; 0.5 amp at 120 volts DC. * Solder terminals.

		Micro	Oper.	Pre-			EACH	
Stock No.	Type BRD2-	Equiv. BZ-	Force Oz.		Fig.	1-9	10- 19	20- Up
905-0455 905-0454 905-0493 905-0495 905-0473	1A° 1A-1S 5L° 5L-1S 2M°	2R 2R-A2 2RL 2RL-A2 2RL2	9-13 9-13 5 5	.020 .020 .156 .156 .156	AACCB	2.83 3.05 3.19 3.48 4.21	2.55 2.75 2.87 3.13 3.79	2.30 2.48 2.58 2.82 3.41
905-0478 905-0497 905-0498 905-0457 905-0458	2M-1S 70° 70-1S 1P° 1P-1S	2RL2-A2 2RD 2RD-1A 2RQ1 2RQ1-A2	5 9-13 9-13 9-13 9-13	.156 .020 .025 .025 .025	BDDEE	4.42 3.67 3.70 6.16 6.31	3.98 2.94 2.94 5.54 5.60	3.58 2.08 3.00 4.99 5.11
905-0461 905-0463 905-0372 905-0374 905-0389 905-0291	10-1S 10° LW8° LW8-1S LW228° LW228-1S	2RS-A2 2RS 2RW 2RW-A2 2RW22 2RW22-A2	9-13 9-13 2½ 2½ 6	.025 .020 .406 .406 .140 .140	FFGGHH	3.92 3.90 3.34 3.34 4.28 4.42		3.18 1.64 2.71 2.71 3.47 3.58

HEAVY-DUTY TYPES

Rated 21 amps, 120-240-480 VAC; 1 hp at 120 VAC and 2 hp at 240 VAC. All have screw terminals.

			Oper.	Pre-		EACH		
Stock No.	Mfr's Type	Micro Equiv.	Force Oz.		Fig.	1-	10- Up	
905-1240 905-1229 905-1202 905-1204	FAD2-1A-1S FAD2-5L-1S FAD2-1P-1S FAD2-LV-1S FAD2-LV2-1S FAD2-40-1S	BA-2R-A2 BA-2RL-A2 BA-2RO1-A2 BA-2RV-A2 BA-2RV2-A2 BA-2RB-A2	21/2	1/20 11/32 1/20 5/8 15/32 1/20	B E G H	3.00 3.45 6.23 4.73 4.73 3.68	3.11 5.60 4.25 4.25	

SERIES BH SPDT 15A SWITCHES

			Oper.	Pre-		EA	CH	
Stock No.	Type SBH2-	Fig.		travel In.	1-	10- 19	20- 49	50- Un
905-3827 905-3831		S	9-24 9-13			8.80 13.37	5.24	

SNAP-ACTION PUSHBUTTON SWITCHES

Panel mount; momentary contact; overtravel plunger. Solder lug term. SPST; rated 6 A, 230 VAC; 12 A, 125 VAC. Oper. force, 10-15 oz. Min. overtravel, .007". 3DO5-5P has black button; 3DC5-5P red. 114" dla. x

					Pre-		EACH	1	
,	Stock No.	Mfr's Type	Fig.	Cir- cuit	travel in.	1- 9	10- 19	20- Up	
	905-5811 905-5805	3D05-5P 3DC5-5P	J	N.O. N.C.	.10	3.19 3.19	2.87	2.58	

MINIATURE LIGHT-PRESSURE SWITCHES

Shock resistant; for long-life performance. "M" types rated 10 amps, 125-250 VAC. "CM" types rated 3 amps, 250 VAC. All are SPDT. † force in grams. Solder term.

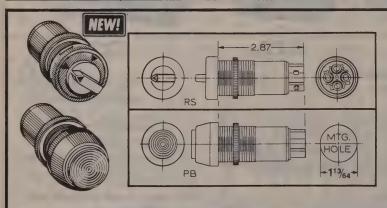
Stock No.	Mfr's Type	Actuator Type	Oper. Faren Oz.	Pre- trav. In.	Fig.	EA. 1- Up
905-5701	1MD1-1A	Pin plunger	6	1/32	K	2.32
905-5710	2MD3-1A	Pin plunger	10	1/32	K	2.32
905-5500	1CMD1-2AXX	Pin plunger	120-27	3/64	K	2.32
905-5505	2CMD1-2AXX	Pin plunger	133-44	3/84	K	2.32
905-5502		Wire Leaf	t2.5		L	2.83
985-5507		Flat leaf	†4		M	2.83
905-5501	1CMD1-1AXX-A23M		5-8	3/64	N	2.83
905-5504			†6		M	2.83
905-5703	1MD1A-18A	Pin plunger	6	1/32	K	2.12

MODEL "V" MINIATURE TYPES WITH COVERS



Sealed mechanism cover. Excellent contact wiping action; bounce-free motion. Mechanical life, 10 million operations. Rated 15 amps at 125/250 VAC. Integral actuators. † Micro equivalent is basic switch with actuator harness. * Solder term.

	*		Oper.	Pre-			EACH	
Stock No.	Mfr's Type	Micro Equiv.	Force		Fig.	1-	10- 19	20- Up
905-4521 905-4527 905-4569	*VD-0001 VD-0007 *VLD-0019	V3-19 V3-1 tV3-19	14	.047 .047 .156	Р	1.82	1.28 1.46 1.80	1.04



ALLIED ENVIRONMATE® SWITCHES

Ultrasonically sealed, inert gas-filled switches ideal for use in rain, sand, seawater, fumes and other severe environments. Operated by high power magnets guaranteed to withstand millions of operations. Heavy duty 20 amp contacts. Non-corrosive materials used throughout. High impact plastic housings withstand 500 psi. No gaskets, "O" rings, flexible diaphragms or glass enclosed reeds. Mount directly on 1¼"-conduit or condulet with simple adapter. 10A, 120V AC/DC.

ROTARY TYPE Description

SPST Double Break

797-1102 797-2102	AB-10-RS-SPDT AB-10-RS-DP-C-C	SPDT DP Alternate One Open-One Closed	47.50 57.50
	PUSH BI	UTTON (MOMENTARY)	
797-1011 797-1021 797-2011 797-2021 797-2112 797-3002	AB-10-PB-SP-NO AB-10-PB-SP-NO AB-10-PB-DP-NO AB-10-PB-DP-NO AB-10-PB-DP-O-C	SP—Red Button SP—Green Button DP Normally Open, Red Button DP Normally Open, Green Button DP One Open/One Closed, Black-Button Shrink boot to cover terminals	37.50 37.50 37.50 37.50 37.50 10.00

MINIATURE SNAP SWITCHES



Highly stable, low wear mechanism. SPDT; 15 A and $\frac{1}{2}$ hp at 125-250 VAC, 10 A at 28 VDC. Operating position, .578" \pm .015. Oper. force, 6-14 oz.; release, 4 oz. min. Size, 1.094 x .625 x .400". U.L., CSA Listed. QC indicates quick-connect term.

						EACH		
Stock No.	Mfr's Type	Micro Equiv.	Fig.	Description	1- 24	25- 49	50- 99	100- Up
757-0660 757-0663 757-0666 757-0672 757-0677 757-0677 757-0690	SS12ET20 SS12ET30 SS12ET302L1 SS12ET302L2 SS12ET302L6 SS12T302L14		AAACCCCBD	Screw terminals Solder lug terminals Quick-connect terminals Straight lever (1.840"); QC Straight lever (1.40"); QC Straight lever (2.34"); QC Straight lever (2.75"); QC Simul. roller (1.285"); QC Simul. roller (1.285"); QC	1.32 1.15 .98 1.15 1.15 1.15 1.15 1.21	1.06 .92 .78 .82 .92 .92 .92 .97	.88 .77 .65 .77 .77 .77 .77	.75 .65 .65 .65 .65 .65
757-0692	SS12ET30102L4	V3L-4-D8	D	Roller lefer (1.34"); QC	1.38	1.10	.92	.78

SUB-MINIATURE SNAP SWITCHES



Stock No.



Type No.





EACH

Rated for 50,000 operations. 7 amps capacity; 25 amps inrush. SPDT contacts; turret term. Temp.: -65° to $+265^\circ$ F. Oper. force, 5 oz. except low force, 3 oz. Release force, 1 oz. Pretravel, .020". Overtravel, .010". Oper. position, .320" \pm .015. U.L. Listed. .500 x .380 x .210". SW54 series are actuators only.

						EA	ACH		
Stock No.	Mfr's Type	Micro Equiv.	Fig.	Description	1- 24	25- 49	50- 99	100- Up	
757-0610 757-0612 757-0616 757-1201 757-1202 757-1203 757-1205	SS10AT40 SS10FT40 SS10KT40 SW54SA8380-1 SW54SA8380-2 SW54SA8380-3 SW54SA8380-4	1SX1-T 2SX1-T 38X1-T JX40 JX41 JX45 JX20	шшшккон	Standard Low force Gold contacts Leaf Reverse leaf Roller leaf Lever	2.59 3.22 3.74 .32 .32 .90	2.07 2.58 2.99 .26 .26 .72 .74	1.73 2.15 2.50 .22 .22 .60	1.47 1.83 2.12 .18 .18 .51	

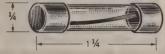
Standard Instrument Fuses and Fuseholders INSTRUMENT FUSES FOR EVERY REQUIREMENT



FAST ACTING FUSES

Quick acting, normal-blowing fuses for short time lag applications. Protect meters, radios, amplifiers, etc. Diagonal alignment of fuse element assures accurate blowing even when element is expanded by heat. Unaffected by high operating temperatures. Carry 110% of rating. Will open at 135% in one hour or less, at 200% in ten seconds or less. 250 V maximum except * 125 V, and † 32 V. Listed by U.L. through 8 amps. Av. wt: 2 oz. Sold only in packages of 5.

Quality Fuses for Every **Application**



DEPENDABLE ROTECTION

SLOW BLOW FUSES

Provide protection for equipment having high reactive current surges or heavy starting currents—such as magnets, solenoids, motors and lamp circuits, but still blow quickly from continued overloads. Carry 100% of rated load 4 hours minimum. Will blow at 135% in one hour or less; 200%, 5 seconds minimum. Employ anti-fatigue construction — compound element with spring and resistor. 250 volt maximum except * 125 V, and † 32 V. Av. shpg. wt: 2 oz. Sold only in packages of 5.

Withstand Momentary **High-Current Surges** but Blow Quickly on Shorts



ALLIED A/3AG/AGC STANDARD FUSES

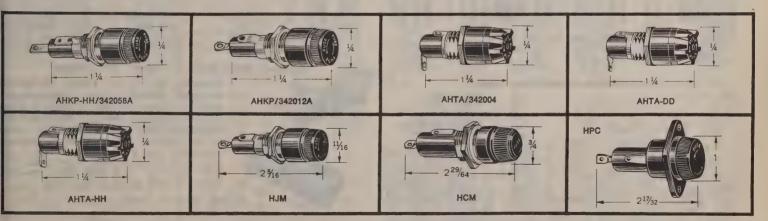
Stock	Type	Amps	I	PER PKG. OF	5
No.	1,400	Amps	1-19	20-99	100-Up
603-0100	A/3AG/AGC	1/100	3.75	3.00	1.80
603-0124 603-0125	A/3AG/AGC A/3AG/AGC	1/32	3.25	2.60	1.60
603-0126	A/3AG/AGC	1/16	1.62	1.30	.80
603-0104	A/3AG/AGC	15/100	1.62	1.30	.80
603-0128	A/3AG/AGC	3/16	1.62	1.30	.80
603-0106	A/3AG/AGC	2/10	1.62	1.30	.80
603-0107 603-0131	A/3AG/AGC A/3AG/AGC	1/4 3/10	.92 .92	.74	.49
603-0132	A/3AG/AGC	3/8	.92	.74	.49 .49
603-0110	A/3AG/AGC	1/2	.92	.74	.49
603-0134	A/3AG/AGC	6/10	.92	.74	.49
603-0135 603-0113	A/3AG/AGC	3/4	.92	.74	.49
603-0114	A/3AG/AGC A/3AG/AGC	1-1/2	.67 .67	.54 .54	.36 .36
603-0115	A/3AG/AGC	2	.67	.54	.36
603-0116	A/3AG/AGC	2-1/2	.67	.54	.36
603-0141	A/3AG/AGC	3	.67	.54	.36
603-0143 603-0144	A/3AG/AGC A/3AG/AGC	5	.67 .48	.54	.36 .27
603-0145	A/3AG/AGC	6	.48	.39	.27
603-0105	A/3AG/AGC	8*	.48	.39	.27
603-0101	A/3AG/AGC	4+ 3	.67	.54	.36
603-0102	A/3AG/AGC	5†	.48	.39	.27
603-0103	A/3AG/AGC	6†	.48	.39	.27
603-0200 603-0201	A/3AG/AGC A/3AG/AGC	7-1/2†	.48	.39	.27 .27
603-0202	. A/3AG/AGC	15+	.48	.39	.27
603-0173	A/3AG/AGC	25†	.48	.39	.27
603-0204	A/3AG/AGC	30+	.48	.39	.27

G/AGC G/AGC	3/10	.92	.74	.49 .49
G/AGC G/AGC G/AGC G/AGC G/AGC	1/2 6/10 3/4 1 1-1/2	.92 .92 .92 .67	.74 .74 .74 .54	.49 .49 .49 .36
G/AGC G/AGC G/AGC G/AGC G/AGC	2 2-1/2 3 4 5	.67 .67 .67 .67	.54 .54 .54 .54 .39	.36 .36 .36 .36
G/AGC G/AGC G/AGC G/AGC G/AGC	6 8* 4† 5† 6†	.48 .48 .67 .48 .48	.39 .39 .54 .39	.27 .27 .36 .27
G/AGC G/AGC G/AGC G/AGC G/AGC	7-1/2† 10 15† 25† 30†	.48 .48 .48 .48	.39 .39 .39 .39	.27 .27 .27 .27 .27
ORDE	ERING INFO	RMATION		s

Please specify Stock No., Type and Amps. Your Allied Electronics representative can arrange prompt shipment of your fuse requirements.

Stock	Type	Amp	Р	ER PKG. OF 5	
No.	1750	7.1119	1-19	20-99	100-Up
603-0209	A/3AG/MDL	1/100	2.75	2.20	1.57
603-0210	A/3AG/MDL	1/32	2.75	2.20	1.57
603-0211 603-0212	A/3AG/MDL A/3AG/MDL	1/16	2.12	1.70 1.70	1.21 1.21
603-0213	A/3AG/MDL	1/8	2.12	1.70	1.21
603-0214	A/3AG/MDL	15/100	2.12	1.70	1.21
603-0215	A/3AG/MDL	.175	2.12	1.70	1.21
603-0216	A/3AG/MDL	3/16	2.12	1.70	1.21
603-0217 603-0218	A/3AG/MDL A/3AG/MDL	2/10	2.12	1.70 1.70	1.21 1.21
603-0219	A/3AG/MDL	3/10	2.12	1.70	1.21
603-0219	A/3AG/MDL	3/8	2.12	1.70	1.21
603-0221	A/3AG/MDL	4/10	2.12	1.70	1.21
603-0222	A/3AG/MDL	1/2	2.12	1.70	1.21
603-0223	A/3AG/MDL	6/10	2.12	1.70	1.21
603-0224	A/3AG/MDL	7/10	2.12	1.70	1.21
603-0225 603-0226	A/3AG/MDL A/3AG/MDL	3/4 8/10	2.12	1.70 1.70	1.21 1.21
603-0227	A/3AG/MDL	1	2.12	1.70	1.21
603-0228	A/3AG/MDL	1-2/10	2.00	1.60	1.13
603-0229	A/3AG/MDL	1-1/4	2.00	1.60	1.13
603-0230	A/3AG/MDL	1-1/2	2.00	1.60	1.13
603-0231 603-0232	A/3AG/MDL	1-6/10	2.00	1.60	1.13
603-0232	A/3AG/MDL A/3AG/MDL	2-1/2*	2.00 1.63	1.30	1.13
603-0234	A/3AG/MDL	2-8/10*	1.63	1.30	.93
603-0235	A/3AG/MDL	3*	1.63	1.30	.93
603-0236	A/3AG/MDL	3-2/10°	1.63	1.30	.93
603-0237	A/3AG/MDL	4° 5°	1.63	1.30	.93
603-0238	A/3AG/MDL		1.63	1.30	.93
603-0239 603-0240	A/3AG/MDL A/3AG/MDL	6-1/4° 7+	1.63 1.63	1.30 1.30	.93
603-0242	A/3AG/MDL	8†	1.63	1.30	.93
603-0243	A/3AG/MDL	10+	1.63	1.30	.93
603-0244	A/3AG/MDL	15†	1.63	1.30	.93
603-0245	A/3AG/MDL	20+	1.63	1.30	.93
603-0246 603-0247	A/3AG/MDL A/3AG/MDL	25† 30†	1.63 1.63	1.30 1.30	.93

PANEL MOUNTED FUSEHOLDERS

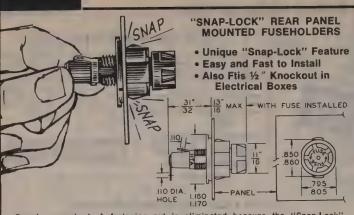


Wide range of through-panel mounting fuseholders designed to accept widely used most popular size fuses. Each compact unit features knurled molded cap for quick frontof-panel fuse replacement without special tools. Hex-nut mounting permits quick addition even to existing equipment—simply drill ½" mounting hole, insert fuse holder and tighten. Ideal for applications in rack mounted equipment, computers, photocopiers or virtually any area of electrical or electronic overload protection. Wide variety of sizes and terminal types. *In table at right indicates quick connect type terminals.

Stock	Mfr's	Fuse	Туре	Amn	1-9 10-24 1.00 .80 .67 .54 .72 .58 .80 .64	EA	ACH		
No.	Type	Size		Amp.	1-9	10-24	25-49	50-Up	
845-0090 845-0091 845-0092 845-0093	HCM HJM HKP HKP-HH	⁹ / ₃₂ x1 ½ ½x1 ½x1 ½ ½x1 ¼	Solder Solder Solder •¼	18 30 30 30	.67 .72	.54	.58 .39 .39 .46	.47 .32 .33 .37	
845-0094 845-0095 845-0096 845-0097	HPC HTA HTA-DD HTA-HH	13/32×1 1/4 1/4×1 1/4 1/4×1 1/4 1/4×1 1/4	Solder Solder *3/16 *1/4	15 15 15 15	1.07 .67 .80 .80	.86 .54 .64	.63 .39 .46 .46	.50 .32 .37 .37	

FUSES

Fuses and Fuseholders



Can be pre-wired. A fastening nut is eliminated because the "Snap-Lock" securely holds the fuseholder in place. Simply install by pushing it into panel from rear side. Can be used in panels .025 to .085" thick.

TYPE HTA-00. Takes 1/4 x 11/4" fuses. Space saver, extends just 1" behind the

5-9.....Each .80 10-Up......Each .72 740-3001. 1-4.....Each .90 TYPE HLD-00. Takes ¼ x 1¼" fuses. Visual indicating fuseholder 740-3002. 1-4.....Each 1.00 59-.....Each .89 10-Up.....Each .80

740-3002. 1-4....Each 1.00 5-9....Each .80 10-Up....Each .72

TYPE HJM-00. Takes ¼ x 1" fuses. Standard fuseholder.
740-3004. 1-4....Each .90 5-9....Each .80 10-Up....Each .72



RECTIFIER FUSES



Protect semiconductor rectifiers, SCR's, thyristors, solid-state devices or wherever a very fast acting fuse is needed. If each diode is fused, shorted diode is taken out of circuit, protecting other diodes. For systems with fault current to 200,000A at 600V or less. *Length including terminals.

KAA SERIES (Max. Volts, 130. 11/2 x13/2".)

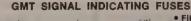
	Dan-1, 1,		EACH			Stock .	EACH			
A	Stock No.	1-	10-	25- Up	A	No.	1-	10- 24	25- Up	
1 2	740-0501	1.82	1.46	1.03	8	740-0520	1.82	1.46	1.03	
	740-0502	1.82	1.46	1.03	10	740-0523	1.82	1.46	1.03	
	740-0505	1.82	1.46	1.03	15	740-0529	1.82	1.46	1.03	
3 4 5	740-0508	1.75	1.25	.90	20	740-0532	1.82	1.46	1.03	
	740-0511	1.82	1.46	1.03	25	740-0535	1.82	1.46	1.03	
	740-0514	1.82	1.46	1.03	30	740-0538	1.82	1.46	1.03	

KAB SERIES (Max. Volts, 250. 2x%6"; *31/8 x11/32".)

8 15	740-0578 740-0586	2.12 2.12	1.70 1.70	1.20	25 30 70*	740-0592 740-0595	2.12	1.70	1.20
20	740-0589	2.12	1.70	1.20	70*	740-0602	10.87	8.70	6.17

KAC SERIES (Max. Volts, 600. 21/8 x1/6".)

740-0632 2.50 3.12



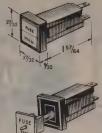


Fit in Limited Mounting Space Color-Coded Flag Indicates Amperage When Fuse Blows

For multiple mounting of fuses in limited space. ¼ x 11½2" mounting space. Color-coded plastic flag on spring indicates fuse ampere rating when fuse blows. Average shpg. wt. 146 oz.

0. 1	_	0.4	EACH						
Stock No.	Amps	Color of Indicator	1-	10- 99	100- 499	500- Up			
740-0410 740-0411 740-0412 740-0414 740-0415	18/100 18/100 18/100 18/100	Yellow Violet Red Brown Gray	.70 .70 .70 .70 .70	.56 .56 .56 .56	.40 .40 .40 .40 .40	.35 .35 .35 .35			
740-0416 740-0417 740-0422 740-0427	1½ ···· 2 3 5	White Orange Blue Green	.70 .70 .70 .70	.56 .56 .56	.40 .40 .40 .40	.35 .35 .35 .35			
740-0439	HIT FO	seholder	75	.60	. 44 3	40			

LOW PROFILE FUSE HOLDERS FOR 3AG AND 8AG FUSES



Snap-on terminals, snap-in holder for 3AG standard or pin indicating fuses and 8AG fuses. Color-coded body and cap. Quick-connect solder terminals available in two widths. Withstands 1500 volts between terminals and terminals to ground. Withstands 50 G for 11 msec. vibration; withstands 10-55 Hz at 0.06" double amplitude vibration. Rated 15 amps at any voltage to 250 V. Mounts in .0625" sq. hole in ½2-½" thick panel.

	45-068X 3488 Bod		EACH					
		Description	1-9	10- 99	100- 499	500- Up		
845-066X 845-068X 845-061X 845-060X	3488 3480	Body, %e" terminal for 3AG use Body, %" terminal for 3AG use Cap for 3AG or 8AG fuse Cap for 3AG or 8AG— pin ind.	.62 .62 .25 .30	.50 .50 .20 .24	.35 .35 .17 .20	.28 .28 .15 .18		

HOW TO ORDER. Bodies and caps available in 6 colors. Subtute Color Code number for X suffix in Allied Stock No.: Red-Green-2; Yellow-3; Blue-4; White-5; Black-7; Gray-9. ample: 3480 cap in yellow-845-0613.

PICOFUSE MICROMINIATURE FUSES

For micro circuits of 125 volts or less where short circuit may be 300 amps at 125 VDC requiring fast action. Fuses can be encapsulated. Blow specifications: 100%. Four hours min.: 200%. 5 seconds max. %2 x %4. Shpg. wt. 2 oz. Sold in pkgs. of 5.



2750	000 A	XIAL L	EADS		27600	00 RA	DIAL	LEADS	
01		PEI	RPKG	OF 5	Stock		PER	PKG C)F 5
Stock No. :	A	1-	5- 99	100- Up	No.	A	1-	5- 99	100- Up
845-0044 845-0045	1/8 1/4	3.65 3.65	2.92	1.95 1.95		1/4	3.65 3.20	2.92 2.56	1.95 1.81
845-0047 845-0048	3/4	3.65 3.65	2.92 2.92	1.95 1.95	845-0073	5	3.20	2.56	1.81
845-0049 845-0053	2	3.20	2.56	1.81					
845-0055 845-0056	3 4	3.20	2.56	1.81					
845-0057	5	3.20	2.56	1.01					

PLUG-IN MICROFUSES

TYPE 27300. Subminiature plug-in fuses with low resistance and high-speed action. Glass cap for visible indication. Short-circuit interrupting capacity, 125 voits, 10,000 amps DC Blowing spec: 100%, 4 hrs. min.; 200%, 5 sec. max. Holders below. †Mfr's type is Micro(amp)A, e.g. Micro 1/500 A. ¼ x 1½,". 2 oz. Sold in pkgs. of 5 only.



Canal		PER	PKG.	OF 5	Stock		PER	PKG.	OF 5
Stock No.	Amp	1-	5- 99	100- Up	No.	† Amp	1-4	5- 99	100- Up
845-0015 845-0017 845-0018	1/20 1/10 1/8	8.62	6.90	4.89	845-0032 845-0036 845-0038	2 3	7.22	5.78 5.78 5.78	4.10
845-0023 845-0027	1/4 1/2				845-0040 845-0041			5.78 5.78	

GMW SUBMINIATURE FUSES AND HOLDERS

Type GMW subminiature prong-type fuse rated 125 V maximum; fault current 300 A maximum. Opens at 200% within 10 seconds or less. 0.27-in. diameter. 1/4-in. long. For type HWA holder. *With Type AF knob for waterproof installation. †Without Type AF knob. Av. shpg. wt. 2 oz. Minimum of 10.



Canal		EACH			Stock		EACH		
Stock No.	Amps	10- 100- 500- 90 490 Up No.		Amps	10- 90	100- 490-			
740-0442 740-0443 740-0444 740-0445	1/10 1/4 1/2 3/4	.95 .95 .95	.76 .76 .76 .76	.54 .54 .54	740-0446 740-0447 740-0448 740-0453	1 1½ 2 3	.95 .95 .95	.76 .76 .76	.54 .54 .54 .54

Stock No.	Fuse holders for	EACH		
	Above Fuses	10-90	100-490	500-Up
740-0499 740-0500	HWA* Holder, fits GMW fuses HWA† Holder, fits RMW fuses	1.02	.81 .71	.68 .60

FUSE BLOCKS FOR 14" AND 112" FUSES

BLOCKS FOR 11/4 x 1/4 " FUSES. All feature compact bakelite base, abaloy-plated solder terminals. Number of poles in table below indicates number of fuse positions. BLOCKS FOR 13/2 x 11/2 " FUSES. Have molded phenolic bases, side barriers, screw terminals. Type 3743 is add-on type, each pole locks into next. Specify one type 3742 end barrier for each fuse strip intended.

Spring bronze, abaloy plated clips.

BLOCKS FOR 14x114" FUSES All 1-1/6" igth. by .500" per pole wide.

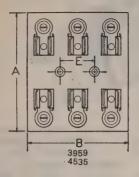
	Type Pole	Dates	EACH			
Stock No.		Poles	1-9	10-49	50-99	100-Up
740-0905 740-0906 740-0907	4405 4408 3998	1 2	.35 .60 .33	.28 .48 .25	.19 .35 .21	.17 .28 .17

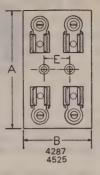
BLOCKS FOR 13/32x13/2" FUSES

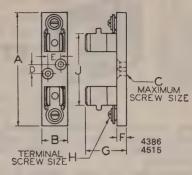
740-0904	3742	'	.21	.17	.13	.10
740-0900	3743	1 1 - 1	1.45	1.16	.85	.68
740-0901	2807	1 . 1	.97	.78	.57	.46
740-0902	2808	2	1.60	1.20	.93	.75
740-0903	2809	3	2.17	1.74	1.26	1.01

FUSE BLOCKS FOR RECTIFIER PROTECTION FUSES

Fuse blocks to take KAA, KAB and KAW TRON fuses for protection of semi-conductor rectifiers, are intended for mounting inside the rectifier housing. Base and spacers are constructed of phenolic composition. Spring clips where used are silver-plated beryllium copper for 13/32 inch diameter fuses, and spring bronze in larger sizes. Other current-carrying parts on all blocks are of brass. All fuse blocks in this series are front-connected.







Stock No.	Mfr's Type	For Fuse Type	Poles	Amps	,	* 1		Dimen	sions	inches)	Terminal Screw			EACH	
140.	rype	Type			Α	В	С	D	E	F	G	Size	J	1-9	10-49	50-Up
740-2015 740-2020 740-2031 740-1088 740-1062 740-1037 740-0948 740-0947 740-0946	4515 4525 4535 4386 4287 3959 3531 3528 3525	KAW, KAA KAW, KAA KAB KAB KAB KAB KAC KAC	123123123	0-30 0-30 0-30 0-30 0-30 0-30 35-60 0-30 0-30	2%6 2%6 2%6 3% 3% 3% 3% 3% 3% 3%	34 15/16 21/16 34 2 3 11/2 21/2 211/16	6 6 6 6 10* 12 12	1/4 † † 1/4 † † 1 5/32	3/8 5/8 3/8 1 1 3/4 1 1/4 13/16	3/16 3/16 3/16 3/16 3/8 1/4 3/8 1/2 1/2	15/16 15/16 15/16 15/16 15/16 13/16 15/16 1 74 1 74	8-32 8-32 8-32 8-32 8-32 8-32 %-18 10-24	19/16 19/16 19/16 21/16 21/18 21/16 27/16 21/2 21/2	.95 1.85 2.72 1.40 2.72 4.25 2.67 4.50 6.75	.76 1.48 2.18 1.12 2.18 3.40 2.14 3.60 5.40	.57 1.08 1.60 .82 1.60 2.49 1.51 2.55 3.83

^{*}Mounting holes counterbored for round-head or fillister-head screws. All others countersunk for flat-head screws. tWhere no D dimension is shown, both mounting holes are on horizontal center line.

FAST-ACTING INSTRUMENT FUSES

Series 361000 or AGX. Formerly 8AG. 250 V max. *125 V. 1x1/4". 2 oz. Sold in Pkg. of 5.

Stock		PER	PKG.	0F 5	Stock		PER P	KG. O	F 5
No.	Amp	1-4	5- 99	100- Up	No.	Amp	1-4	5- 99	100- Up
845-0430 845-0431 845-0432 845-0433	1/200 1/100 1/32 1/16	4.37 3.75 3.25 2.12	3.50 3.00 2.60 1.70	2.48 2.13 1.84 1.20	845-0437 845-0438 845-0439 845-0440	3/8 1/2 1 · · · · · · · · · · · · · · · · · · ·	.92 .92 .67 .67	.74 .74 .54 .54	.52 .52 .38 .38
845-0434 845-0435 845-0436	1/10 1/8 1/4	1.62 1.62 .92	1.30 1.30 .74	.92 .92 .52	845-0441 845-0442 845-0449 845-0443	2 3° 4° 5°	.67 .67 .67	.54 .54 .54	.38 .38 .38



CERAMIC TUBE FUSES

Formerly 3AB. High-interrupting capacity fuses for circuits capable of delivering currents as high as 25,000 amps at 125 volts, or 10,000 amps at 250 volts. Carry 110% open at 135% within one hour. 15 amps and less U.L. Listed. Sold in pkgs. of 5.

Stock		PER	PKG.	OF 5	Stock		PER	PKG.	OF 5
No.	Amp.	1-	5- 99	100- Up	No.	Amp.	1-4	5- 99	100- Up
845-0255	1	1.37	1.10	.78	845-0271	10	1.16	.93	.66
845-0259	2	1.37	1.10	.78	845-0272	12	1.37	1.10	.78
845-0262	3	1.37	1.10	.78	845-0273	15	1.37	1.10	.78
845-0264	5	1.16	.93	.66	845-0274	20°	1.37	1.10	.78
845-0265	6	1.16	.93	.66	845-0275	25°	1.75	1.40	.99
845-0269	8	1.16	.93	.66					
	0	1.10		1 .00	<u> </u>				



125 V. maximum; others 250 V. maximum

FUSETRON FNM FIBER TUBE FUSES

Dual-element, slow-blowing fuses. Fuse link operates only on high overloads or short circuits. Thermal cutout operates on low overloads, slowly, giving long time lag—thus protects against continued overloads. 250 V max. 1½ x¾2/. U.L. Listed. 2 oz. **Sold only in pkgs.** of 10.

Stock		PER	PKG.	DF 10	Stock	Amn	PER	PKG. 0)F 10
No.	Amp	1-2	3-7	8-Up	No.	Amp	1-2	3-7	8-Up
740-0090	2/10	7.00	5.60	3.97	740-0106	3½	7.00	5.60	3.97
740-0091	3/10	7.00	5.60	3.97	740-0108	4	7.00	5.60	3.97
740-0092	4/10	7.00	5.60	3.97	740-0110	5	7.00	5.60	3.97
740-0093	½	7.00	5.60	3.97	740-0115	6¼	7.00	5.60	3.97
740-0094	6/10	7.00	5.60	3.97	740-0120	7	7.00	5.60	3.97
740-0095	8/10	7.00	5.60	3.97	740-0125	10	7.00	5.60	3.97
740-0096	1	7.00	5.60	3.97	740-0130	12	7.00	5.60	3.97
740-0101	2	7.00	5.60	3.97	740-0135	15	7.00	5.60	3.97



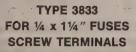
ALLIED FC FUSEHOLDER, SWITCH AND PILOT LIGHT

115/230 V, 60 Hz AC. Fully sintered silver-cadmium-oxide main-switch contacts have high arc resistance and extremely long life. Take 6-amp quick or slow-lay 3AG fuse. Unit life: 50,000 cycles at 6 per minute. Use with "Fast-On" terminals. Type FCA: Separate circuits for main and pilot light. Main rated 6A. Type FCB: Same as FCA but one side of pilot light is common with main. Mounts in ½" hole. Suffix F—Plain Ferrule; K—Knurled Nut; W—Escutcheon requiring ¾" dia. Hole. 2 oz.

Stock	Mfr's	EA	CH
No.	Туре	1-9	10-Up
565-8035	FCA-F	10.00	6.00
565-8039	FCA-K	10.00	6.00
565-8042	FCA-N	10.00	6.00
565-8057	FCA-W	10.00	6.00
565-8065	FCB-F	10.00	6.00
565-R069	FCB-K	10.00	6.00
565-8072	FCB-N	10.00	6.00
565-8087	FCB-W	10.00	6.00

STANDARD FUSE BLOCKS

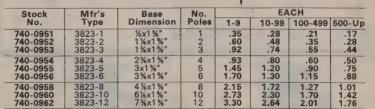
Available from 1 to 12 poles. Have laminated black phenolic base. Clips of strong spring bronze, albaloy plated, highly resistant to corrosion with excellent gripping ability. Type 3823 and 3828 have soldered terminals on small base. Mounting holes for No. 6 screw. Type 3833 has screw on full base that provides ample insulation around terminals.





STOCK	IVITES	Dase	NO.				
No.	Туре	Dimensions	Poles	1-9	10-99	100-499	500-Up
740-1000	3833-1	25/32×23/6"	1	.62	.50	.36	.29
740-1001	3833-2	1 11/16×23/6"	2	1.25	1.00	.74	.56
740-1002	3833-3	2 15/32×23/6"	3	1.92	1.54	1.13	.90
740-1003	3833-4	3 1/2×23/6"	4	2.55	2.04	1.49	1.19
740-1004	3833-5	4 ¹³ / ₃₂ x2 ³ / ₆ "	5	3.17	2.54	1.86	1.49
740-1005	3833-6	5 ⁵ / ₁₆ x2 ³ / ₈ "	6	3.82	3.06	2.42	1.79
740-1006	3833-7	6 ⁷ / ₃₂ x2 ³ / ₆ "	7	4.45	3.56	2.60	2.08
740-1009	3833-10	8 ¹⁵ / ₁₆ x2%"	10	6.40	5.12	3.74	2.99
740-1010	3833-11	9 ²⁷ / ₃₂ x2%"	11	7.00	5.60	4.10	3.28
740-1011	3833-12	10%x2%"	12	7.62	6.10	4.45	3.56

TYPE 3823 FOR 1/4 x 11/4" FUSES **SOLDER TERMINALS**



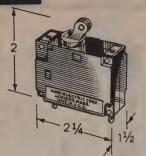
.175

TYPE 3828 FOR 1/4 x 1" FUSE SOLDER TERMINALS

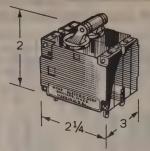
Stock	Mfr's	Base	No.	EACH				
No.	Type	Dimensions	Poles	1-9	10-99	100-499	500-Up	
740-0971	3828-1	1/2×1 1/8"	1	.35	.28	.21	.17	

21/8

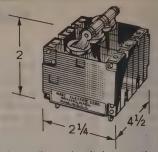
Magnetic and Thermal Circuit Breakers MINI-MAG HYDRAULIC-MAGNETIC CIRCUIT-BREAKERS



Single-Pole



Two-Pole



Three-Pole

Rugged construction protects to 30 amps, to 250 volts, 60 Hz AC. Accurately calibrated to carry 100% of rated load and to trip at between 101% and 125% of load. Trip-timing at 200% of rated load is from 2 to 20 seconds.

A spring-loaded iron piston sealed in a silicone-fluid-filled nonmagnetic metal tube is energized by the load current, attracting the armature and opening the breaker contacts. The fluid produces a time-delay on moderate overloads. On heavy overloads, the piston moves

virtually instantaneously for immediate circuit interruption. Operation is unaffected by ambient conditions. Terminals accept soldered, snapon, crimped or screw connections.

Humidity Resistance, per MIL-STD-202 and MIL-STD-170. Dielectric Strength, 1100 VDC. Reset Time, instantaneous. Voltage Drop, 1.5 volts at 1 amp or more. Shock and Vibration, tested per MIL-STD-202. Operating Temperature, $-40^{\circ}\text{C}.$ to $+85^{\circ}\text{C}.$ Insulation Resistance, 100 megs at 500 VDC. All parts are fungus resistant. Wt. 1 oz.

	GL		

Mfr's	Amna	EACH					
Туре	Amps	1-4	5-9	10-Up			
511-201-101 511-202-101	1 2	9.50 9.50	7.60	5.39 5.39			
511-205-101 511-207-101	.5 7	9.50 9.50	7.60 7.60	5.39 5.39			
511-210-101 511-215-101 511-220-101	10 15 20	9.50 9.50 9.50	7.60 7.60 7.60	5.39 5.39 5.39 5.39			
	Type 511-201-101 511-202-101 511-205-101 511-207-101 511-210-101 511-215-101	Type 511-201-101 1 511-202-101 2 511-205-101 5 511-207-101 7 511-210-101 10 511-215-101 15 511-220-101 20	Type Amps 1-4 511-201-101 1 9.50 511-202-101 2 9.50 511-205-101 5 9.50 511-207-101 7 9.50 511-215-101 15 9.50 511-220-101 20 9.50	Type Amps 1-4 5-9 511-201-101 1 9.50 7.60 511-202-101 2 9.50 7.60 511-205-101 5 9.50 7.60 511-207-101 7 9.50 7.60 511-210-101 10 9.50 7.60 511-215-101 15 9.50 7.60 511-220-101 20 9.50 7.60			

ш	и	ĸ	а.	ופ	٥.	=

			2 .		
Stock	Mfr's	Amps		EACH	
No.	Туре	Minhs	1-4	5-9	10-Up
89-6583	518-202-101	2	16.82	14.00	13.25
39-6586	518-205-101	5	16.82	14.00	13.25
89-6591	518-210-101	10	16.82	14.00	13.25
89-6596	518-215-101	15	16.82	14.00	13.25
89-6601	518-220-101	20	16.82	14.00	13.25
89-6606	518-225-101	25	16.82	14.00	13.25
89-6611	518-230-101	30	16.82	14.00	13.25

THREE-POLE

Stock	Mfr's	Amps		EACH	
No.	Туре	Miliha	1-4	5-9	10-Up
989-6646 989-6666	525-210-101 525-230-101	10 30	25.04 25.04	22.50 22.50	19.58 19.58
***************************************	L			·	

Allied can supply all your circuit breaker needs. Contact the nearest Allied Electronics facility for prics on quantities larger than shown.

MAGNETIC TYPE CIRCUIT BREAKERS

MODEL 190 TWO-POLE AC TYPE

For use up to 250 volts, 60 Hz AC. Both poles are interlocked and operate simultaneously. Carries 100% of rated load indefinitely, ultimate trip at 125%. Trip time at 200% is approximately 5 seconds. Interrupts over 1000 amps at 250 volts. Size: 1½x2x2½". Shipping weight 9 oz.

Stock	Mfr's		EACH		
No.	Type	Amps	1-4	5-9	10-Up
989-6338	190-203-101	3	20.75	19.50	17.64
989-6340	190-205-101	5	20.75	19.50	17.64
989-6346	190-210-101	10	20.75	19.50	17.64
989-6351	190-215-101	15	20.75	19.50	17.64
989-6356	190-220-101	20	20.75	19.50	17.64
989-6361	190-225-101	25	20.75	19.50	17.64
989-6366	190-230-101	30	20.75	19.50	17.64
989-6376	190-240-101	40	20.75	19.50	17.64
989-6386	190-250-101	50	20.75	19.50	17.64

2 1/2

MODEL 130 SINGLE-POLE DC TYPE

 Unusually Fast Trip Time: at 200% Approx. 15 msec.

Auxiliary
 Circuit Switch



TACK!
512e. 74x2x272 . Stipg. Wt. 472 02.
Size: $\frac{3}{4}$ x2x2 $\frac{1}{2}$ ". Shpg. wt. $\frac{4}{2}$ oz.
Interruptions over 2000 amps at 50 volts DC.
time at 200%, approximately 15 milliseconds.
nitely, with ultimate trip at 120%. Tripping
ary circuit. Carries 100% of rated load indefi-
for up to 50 VDG. Includes switch for auxil-

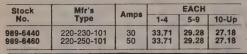
Stock	Mfr's	Amps	EACH		
No.	Туре	Alliha	1-4	5-9	10-Up
989-6258	130-201-101	1	13.27	10.45	9.38
989-6259	130-202-101	2	13.27	10.45	9.38
989-6260	130-203-101	3	13.27	10.45	9.38
989-6262	130-205-101	5	13.27	10.45	9.38
989-6264	130-207-101	7	13.27	10.45	9.38
989-6267	130-210-101	10	13.27	10.45	9.38
989-6273	130-215-101	15	13.27	10.45	9.38
989-6285	130-225-101	25	13.27	10.45	9.38
989-6290	130-230-101	30	13.27	10.45	9.38
989-6300	130-240-101	40	13.27	10.45	9.38
989-6310	130-250-101	50	13.27	10.45	9.38

MODEL 220 THREE-POLE AC TYPE

10-Up

5.15 5.15 3.40

For use up to 250 volts, 60 Hz AC operation. All three poles are interlocked and operate simultaneously. Carries 100% of rated load indefinitely, with ultimate trip at 125%. Trip time at 5 seconds is 200%. Interrupts over 1000 amps at 250 volts. 2\%2x2x2\frac{1}{2}". Shipping weight 14 oz.



1375

+1375



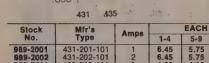
MODEL 122 SINGLE-POLE AC TYPE

Similar to Model 130, but without auxiliary switch. For 60 Hz AC, up to 250 V. Will carry 100% of rated load indefinitely, with ultimate trip at 125%. Trip time 5 seconds at 200%. Interrupts over 1000 amps at 250 volts AC. 34 x 2 x 2½", Wt. 4½ oz.

Stock	Mfr's	A	EACH		
No.	Type	Amps	1-4	5-9	10-Up
989-6179	122-201-101	7	12.65	10.12	7,18
989-6180	122-202-101	2	12.65	10.12	7.18
989-6181	122-203-101	3	12.65	10.12	7.18
989-6182	122-204-101	4	12.65	10.12	7.18
989-6183	122-205-101	5	12.65	10.12	7.18
989-6185	122-207-101	7	12.65	10.12	7,18
989-6188	122-210-101	10	12.65	10.12	7.18
989-6193	122-215-101	15	12.65	10.12	7.18
989-6198	122-220-101	20	12.65	10.12	7.18
989-6204	122-225-101	25	12.65	10.12	7,18
989-6210	122-230-101	30	12.65	10.12	7.18
989-6221	122-240-101	40	12.65	10.12	7.18
989-6232	122-250-101	50	12.65	10.12	7.18

THERMAL CIRCUIT BREAKERS

Models 431 and 435. U.L. Component Recognized, CSA Listed. Have recessed reset button which cannot be manually pulled out; visible trip indication. Max. ratings. 32 VDC and 250 VAC (to 400 Hz). Terminations #6-32 screw terminals. Mounting by thumb nut on bushing. Wt. 1.5 oz. Model 436. Has special magnet which assists during millisecond tripping of heavy overloads. Visible trip indication. Meets MIL-C-5809. Max. voltage ratings are 32 VDC and 120 VAC (to 400 Hz). Weighs less than 3 oz. Termination #8-32 screw terminals. Mount with #6-32 screws.



Stock	Mfr's	A	EACH		
No.	Type	Amps	1-4	5-9	10-Up
989-2014	435-210-101	10	4.60	4.10	3,70
989-2015	435-215-101	15	4.60	4.10	3.70
989-3001	436-205-101	5	14.10	12.50	11.30

	STOCK	MILS	Amne	EACH		
	No.	Type	Amps	1-4	5-9	10-Up
	989-3003	436-210-101	10	14.10	12.50	11.30
	989-3004	436-215-101	15	14.10	12.50	11.30
_	363-3001	436-250-101	50	14.10	12.50	11.30

146 • **ALLIED**

Thermal and Manual Reset Breakers

SINGLE-POLE THERMAL TYPES

MODEL 507 MILITARY TYPE

- Meets MIL-C-5809D and Drawing MS25244
- Trip Time at 200% 25 Seconds

Critically designed to meet the requirements of MIL-C-5809D and Drawing MS25244 for AC and DC circuits. Interrupts over 200 amps. Maximum operating voltages are 250 volts AC and 32 volts DC. Units carry indefinitely 115% of rated load with ultimate trip at 138%. Trip time at 200% is approximately 25 seconds. Size: $1\frac{3}{4}x\frac{3}{4}x1''$. Shpg. wt. $10\frac{1}{2}$ oz.



Stock	Mfr's		EACH		
No.	Туре	Amps	1-4	5-9	10-Up
89-6505	507-205-101	5	14.17	12.15	8.05
89-6506	507-507-101	7.5	14.17	12.15	8.05
989-6507	507-210-101	10	14.17	12.15	8.05
989-6510	507-215-101	15	14.17	12.15	8.05
989-6512	507-220-101	20	14.17	12.15	8.05
989-6514	507-225-101	25 .	14.17	12.15	8.05
89-6516	507-230-101	30	14.17	12.15	8.05
89-6518	507-235-101	35	14.17	12.15	8.05
989-6520	507-240-101	40	14.17	12.15	8.05
989-6522	507-250-101	50	14.17	12.15	8.05

MODEL 112 TOGGLE TYPE

- Meets MIL-E-5272C Specifications
- Contact Wiping Action for Minimum Corrosion
- Available Ampere Ratings 5-50 Amps

Combination switch and circuit breaker for miniature applications. Meets MIL-E-5272C for AC and DC circuits. Carries 100% of rated load indefinitely, with ultimate trip at 135%. Tripping time at 200% is 10 seconds. Interruption, over 3000 amps. For 250 VAC, 32 VDC. Size: $2x^3/4x^1/4$ ". Shpg. wt. 2 oz.



Stock	Mfr's	Amps	EACH			
No.	Туре	Anips	1-4	5-9	10-Up	
989-6130	112-205-101	5	8.17	6.54	4.64	
989-6154	112-507-101	7.5	8.17	6.54	4.64	
989-6133	112-210-101	10	8.17	6.54	4.64	
989-6136	112-215-101	15	8.17	6.54	4.64	
989-6139	112-220-101	20	8.17	6.54	4.64	
989-6142	112-225-101	25	8.17	6.54	4.64	
989-6145	112-230-101	30	8.17	6.54	4.64	
989-6148	112-235-101	35	8.17	6.54	4.64	
989-6151	112-240-101	40	8.17	6.54	4.64	
989-6152	112-250-101	50	8.17	6.54	4.64	

MODEL 374 PUSH-TO-RESET TYPE

- Available Ampere Ratings 1-4 Amps
- Close Operating Tolerance Repeatability
- Heater Wire to Assist on Low Ratings

Economical low current protection. Button extends to indicate overload. For 250 VAC, 32 VDC. Carries 100% of rated load, with ultimate trip at 135%. Trip time at 200% is 10 seconds. Interruption over 1000 Amps. Dielectric Strength: over 1500 volts RMS. Voltage Drop: less than 1½ volts. 1%x1%x1%x1%". Shpg. wt. 1½ oz.



Stock No.	Mfr's	4	EACH			
	Туре	Amps	1-4	5-9	10-Up	
989-6486	374-201-101	. 1	4.85	4.15	3.75	
989-6487	374-202-101	2	4.85	4.15	3.75	
989-6488	374-203-101	3	4.85	4.15	3.75	
989-6489	374-204-101	4	4.85	4.15	3.75	

MODEL 375 PUSH-TO-RESET TYPE

Same specifications as above. Tripping time at 200% is 7 seconds. Interruption over 300 amps. *Not U.L. Recognized. Shpg. wt. $1\frac{1}{2}$ oz.

Stock No.	Mfr's		EACH				
	Type	Amps	1-4	5-9	10-24	25-Up	
989-6490	375-205-101	5	2.97	2.38	1.68	1.48	
989-6493	375-206-101	6	2.97	2.38	1.68	1,48	
989-6491	375-207-101	7	2.97	2.38	1.68	1,48	
989-6494	375-208-101	8*	2.97	2.38	1.68	1.48	
989-6492	375-210-101	10	2.97	2.38	1.68	1.48	
89-6496	375-215-101	15	2.97	2.38	1.68	1,48	
89-6501	375-220-101	20	2.97	2.38	1.68	1.48	
989-6495	375-230-101	30*	2.97	2.38	1.68	1.48	

MODEL 109 PUSH-PULL TYPE

- Bimetallic Element Link Between Overload and Mechanical Tripping
- Precision Latching Components

Features push-pull button for operating or closing circuits. For 250 VAC, 32 VDC. Carries 100% rated load indefinitely, with trip at 135%. Tripping time is 9 seconds at 200%. Interruption over 5000 amps. Dielectric Strength: 1500 volts RMS. Voltage Drop: less than $1\frac{1}{2}$ volts. Resistance: less than $\frac{1}{4}$ ohms. $2x^3/4x^1\sqrt[4]{4}$ ". Wt. 2 oz.



CIRCUIT BREAKERS

Stock	Mfr's	4	EACH			
No.	Type	Amps	1-4	5-9	10-Up	
989-6063	109-205-101	5	7.71	6.16	4.37	
989-6090	109-507-101	7.5	7.71	6.16	4.37	
989-6066	109-210-101	10	7.71	6,16	4.37	
989-6069	109-215-101	15	7.71	6.16	4.37	
989-6072	109-220-101	20	7.71	6.16	4.37	
89-6075	109-225-101	25	7.71	6.16	4.37	
89-6078	109-230-101	30	7.71	6.16	4.37	
989-6084	109-240-101	40	7.71	6.16	4.37	
89-6087	109-250-101	50	7.71	6.16	4.37	
989-6088	109-260-101	60	7.71	6.16	4.37	

MODEL 111 PUSH-PULL TYPE

Same specifications as Model 109 above, but with faster trip time at 200% of only .75 seconds. Interruption over 100 A. Wt. 2 oz.

Stock	Mfr's Type	Amps	EACH			
No.			1-4	5-9	18-24	25-Up
989-6116 989-6117 989-6118 989-6119	111-201-101 111-202-101 111-203-101 111-204-101	1 2 3 4	11.10 11.10 11.10 11.10	9.50 9.50 9.50 9.50	7.91 7.91 7.91 7.91	6.86 6.86 6.86 6.86

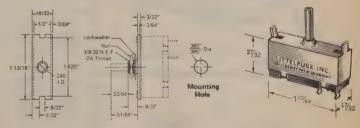
MODEL 114 PUSH-PULL TYPE

Auxiliary SPDT switch is electrically isolated but mechanically connected to breaker circuit. SPDT contacts rated 5 amps at 120 VAC, 1 amp at 50 VDC. Max. voltage: 32 VDC or 250 VAC, 400 Hz. *Not U.L. Recognized. Size: 1.875x1.344x.930".

Stock	Mfr's	Amps	EACH					
No.	Type	Amps	1-4	5-9	10-Up			
989-5001	114-201-101	1	12.19	11.17	10.37			
989-5002	114-202-101	2	12.19	11.17	10.37			
989-5003	114-203-101	3	12.19	11.17	10.37			
989-5004	114-205-101	5	12.19	11.17	10.37			
989-5005	114-206-101	6	12.19	11.17	10.37			
989-5006	114-209-101*	9*	12.19	11.17	10.37			



MANUAL RESET CIRCUIT BREAKERS



Provide quick overload protection and ambient temperature compensation using separate bimetal elements for each function. "Trip free" feature prevents contacts from being manually held closed when overload occurs. U.L. Recognized as follows: hold current ratings of 0.65-1.0 rated 15A short circuit; 1.2 and up, 50A short circuit. 14%x\1/32x\2/32".

Stock No.	Mfr's Type	Hold (Amps)	Trip (Amps)	Stock No.	Mfr's Type	Hold (Amps)	Trip (Amps)
845-0501	815,650	.049	0.86	845-0510	8152.75	1.92	3.33
845-0502	815.800	0.60	1.05	845-0511	815003	2.10	3.67
845-0503	815001	0.65	1.14	845-0512	81503.5	2.30	4.03
845-0504	8151.25	0.93	1.63	845-0518	8153.75	3.75	4.20
845-0505	81501.5	1.00	1.75	845-0513	815004	2.50	4.37
845-0506	8151.75	1.20	2.10	845-0514	81504.5	3.00	5.25
845-0507	815002	1.40	2.45	845-0516	815006	3.90	6.82
845-0508	8152.25	1.50	2.62	845-0517	815007	4.14	7.25
845-0509	81502.5	1.65	2.89				

6-9.....1.68

Each 1-5.....2.09

Allied Power Supply and Replacement Cords

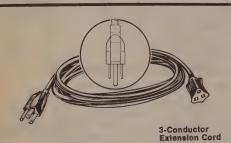
WIRE AND CABLE INDEX Appliance Cords148 02514 Series153 Coaxial Cable MIL-C-17D . . . 149 Belden 02679 Series153 8520 Series150 Extension Cords148 8920 Series150 Cable Tools and 02882 Series153 Accessories . 154, 155, 160, 161 06040 Series153 Dearborn Kynar . Dearborn Cable, Shielded 74220 Series154 Alpha 926 Series154 Cable, Unshielded Alpha MIL-W-16878D/E150 Lacing Tapes154 2811 Series154 1064 Series152 UL 1007150 1172 Series152 UL 1015150 6010 Series153 Miscellaneous Cable 1180 Series152 UL 1429 Belden 8401 Series151 8660 Series151 1300 Series152 8409 Series151 8866 Series151 **Alpha** 1891 Series152 8410 Series151 1340 Series150 8890 Series151 8421 Series154 1381 Series150 Columbia 8441 Series153 8205 Series152 1550 Series150 01415 Series151 8450 Series153 8440 Series152 1561 Series 8722 Series153 8450 Series152 1805 Series150 8764 Series153 8460 Series152 2821 Series150 8470 Series152 3050 Series150 Ribbon Cable & Columbia 8741 Series 3071 Series150 **Accessories** 156, 157 01202 Series153 8753 Series152 5850 Series150 01302 Series153 7053 Series150 01332 Series153 Tubing, Shrinkable 01644 Series 02404 Series152

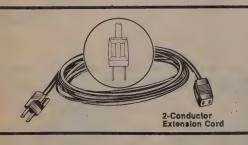
HIGH QUALITY, REASONABLY PRICED CORDS FOR EVERY APPLICATION

U.L. Listed power supply and extension cords for a wide variety of applications in factories, warehouses, farms, office and

homes. Ideal for machinery, test instruments, construction equipment, home and shop power tools, and small appliances.

3-Conductor Replacement Cord







THREE-CONDUCTOR POWER SUPPLY AND REPLACEMENT CORDS

Stock	Ottook Aillos			lent Types		Size &	Lath.	Rating	Color	ŧΑ	CH
No.	Type	Alpha	Belden	Columbia	Dearborn	Туре	Lyui.	@125 V	COIDI	1-9	10-Up
663-7016	7016		17236	20328	9601	18/3 SV	6′	10A	Black	1.77	1.42
663-7018	7018		17237	20330	9609	18/3 SVT	6'	10A	Gray	1.34	.80
663-7019	7019		17239	20331		18/3 SJ	8'	10A	Gray	1.51	:90
663-7020	7020	615	17406	20264	9615	18/3 SJ	6'	10A	Black	1.55	1.03
663-7021	7021		17408	20314	9617	18/3 SJ	8'	10A	Black	1.78	1.06
663-7022	7022		17412	20316		18/3 SJ	12'	10A	Black	3.05	2.44
663-7028	7028			20324		16/3 SJ	8'	13A	Black	3.15	2.55
663-7029	7029	619	17419	24929	9619	16/3 SJ	9'	13A	Black	2.91	2.33
663-7030	7030		17242	24932		16/3 SJ	12'	13A	Black	3.10	1.80

THREE-CONDUCTOR EXTENSION CORD

Stock	Allied					Size &	Lesh	Rating @125 V	Color	EACH	
No.	Туре	Alpha	Belden	Columbia	Dearborn	Турв	Lgth.	@125 V	COIDI	1-9	10-Up
663-7046	7046			41114	9641	16/3 SJ	10'	10A	Black	5.25	4.20
863-7043	7043	636	17460	20288	9636	18/3 SJ	10'	10A	Black	2.75	1.98

TWO-CONDUCTOR EXTENSION CORD

Stock	Allied		Equivalent Types				Lash	Rating	Color	EACH	
No.	Type	Alpha	Belden	Columbia	Dearborn	Size & Type	Lgtn.	@125 V	COIDI	1-9	10-Up
663-7036	7036	626		26025	9626	18/2 SJ	25'	10A	Black	5.94	4.75

SMALL APPLIANCE CORDS

Stock	Allied		Equiva	Equivalent Types			Lgth.	Rating	Color	EA	EACH	
No.	Type	Alpha	Belden	Columbia	Dearborn	Тура	Lyta.	@125 V	00101	1-9	10-Up	
663-7012	7012		17106	24586	9650	18/2 SPT-1	6"	10A	Brown	.68	.55	
663-7014	7014		17109	24589	9651	18/2 SPT-1	9'	10A	Brown	.81	.65	
663-7015	7015		l danai	24599	1	18/2 SPT-1	9'	10A	White	.83	.66	

TYPE DESIGNATIONS OF THE NATIONAL ELECTRICAL CODE

All of the power supply, replacement, extension and small appliance cords listed on this page, including both two and three conductor types, are U.L. listed. The types referred to in the "Size & Type" columns are the type designations recognized and sanctioned by the National Electrical Code. You will find an explanation of these type designations below.

Type SJ. Junior hard-service cord. Rubber insulation, ethylene propylene rubber or other rubber jacket. 300 volts. Type SV. Rubber insulation. Rubber jacket, 300 volts. Type SVT. All plastic cord. Polyvinyl chloride insulation. Polyvinyl chloride jacket. 300 volts. Type SPT-1. All vinyl cord.

148 • **ALLIED**

WIRE/CABLE

Coaxial Cable for Industry

CABLE JACKET TYPES

(MIL-C-17) — Black Polyvinylchloride. Characteristics: excellent weathering and abrasion properties, but is of the contaminating type and will cause cable attenuation to increase with age. Can be used for direct burial.

TYPE II

(JAN-C-17A) — Gray Polyvinylchloride. Characteristics: a semi-non-contami-nating jacket.

TYPE IIA

(MIL-C-17) — Black or Gray Polyvinyl-chloride. Characteristics: non-contam-inating. Good weathering and abrasion resistant properties. Can be used for

TYPE IIIA

(MIL-C-17)—Black Polyethylene. Characteristics: moisture resistant, abrasion resistant, defies ultra violet damage. Non-contaminating; recommended for direct burial.

(MIL-C-17) — Fiberglas braid. Characteristics: impregnated with silicone varnish to provide abrasion resistance and a moisture seal.

TYPE VII

(MIL-C-17) — Teflon (Polytetrafluor-dethylene). Characteristics: either extruded or tape wrapped. Withstands high temperatures; chemically inert; insoluble in liquids and gases.

TYPE IX

(MIL-C-17)—Teflon (Fluorinated Ethylene Propylene). Characteristics: excellent weathering properties and chemically inert. Maximum operating temperature of 200°C.

MIL-C-17D POLYETHYLENE DIELECTRIC RG COAXIAL CABLES

OPERATING TEMPERATURE LIMITS FOR CABLE JACKETS

Military Designation	Jacket Type	Temperature Limits				
Type I	Black Polyvinylchloride	-40°C to + 80°C				
Type II	Gray Polyvinylchloride	-25°C to + 80°C				
Type IIA	Black or Gray Polyvinylchloride	*-55°C to + 90°C †-40°C to + 90°C				
Type IIIA	Black Polyethylene	-55°C to + 85°C				
Type V	Fiberglass Braid	-55°C to +250°C				
Type VII	Teflon (PTFE)	55°C to +250°C				
Type IX	Teflon (FEP)	-55°C to +200°C				

*Under 1/4" O D . +Over 1/4" O D

An assortment of the most popular types of MIL-C-17D RG coaxial cables. Typical applications include RF transmission line, antenna lead-in and test lead. All types

NOMENCLATURE DIELECTRIC CONDUCTORS JACKET ARMOR CONDUCTOR (Shields (Braids)

listed combine low capacitance and low attenuation. All have low-loss polyethylene dielectrics and meet MIL-C-17D specifications. See chart for available lengths.

-	RG	Cond.	O.D.	Imp.	Cap.	Max.	Cable	100-Ft. S	pools	500-Ft. S	pools	1000-Ft. S	Spools
	No.	AWG	Inches	Ohms	рĖ	Volts	Jacket	Stock No.	EACH	Stock No.	EACH	Stock No.	EACH
	8/U 8A/U 9/U	13 (7x21) 13 (7x21) 13 (7x21)	.405 .415 .420	50 52 50	29.5 29.5 30.0	5000 5000 5000	IIA II Gray	743-1070 743-1100	25.15 NOW 82.61	DESIGNAT	ED AS	213/0	
-	9B/U 11/U	13 (7x21) 18 (7x26)	.430 .405	50 75	30 20.5	5000 5000	HA I	743-1150	NO W 19.93	743-1151	99.70		
	55B/U 58/U 58A/U	20 (Solid) 20 (Solid) 21 (19x33)	.206 .195 .199	53.5 53.5 50	28.5 28.5 29.5	1900 1900 1900	IIIA !	743-1640 743-1670 743-1680	44.08 11.12 12.82	743-1641 743-1671 743-1681	195.39 49.09 46.76		315.63 75.55 79.95
	58C/U 59/U	21 (19x33) 21 (19x33) 22 (Solid)	.199	50 73	29.5 21.0	1900 2300	ÍΙΑ	743-1820 743-1840	17.03 18.83	743-1821 743-1841	74.14 67.63	743-1822	99.79 113.62
	59A/U 59B/U	.023CW .023CW	.246	75 75	20.5	2300 2300	IIA I	743-1860 743-1880	20.74 15.63	EPLACED E 743-1861 743-1881	94.19 69.13	743X1862	132.86 104.20
	62/U 62A/U 63B/U	22CW 22CW 22CW	.250 .240 .415	93 93 125	13.5 13.5 10	750 750 1000	IIA	743-1890 743-1930	15.03 15.03 39.07	743-1891 743-1891 743X1931	69.13	743-1892	109.81
	108A/U 187A/U	2 (7x28) 7/.004SCW	.235 .110	78 75	20 19.5	1000 1200	IIA VII	743-3160	52.50	743-2241	93.18		
	174/Ú 213/U 214/U	7/34CW 13 (7x12) 13 (7x21)	.105 .412 .432	50 50 50	30 30.5 30.5	1500 3000 3000	IIA IIA	743-2900 743-3280 743-3290	14.70 30.06 130.26	743-2901	40.08		69.13
	214/U 223/U	13 (7x21) .035\$.216	50	30.5	1900	IIA	732-3380	43.08				

LOW-LOSS FOAM COAXIAL CABLE

Ideal for use in community TV antenna installations. Offers much lower loss than regular RG types of coaxial cables. Combines low attenuation and low capacitance. Cellular polyethylene reduces signal attenuation as much as 35%—assures constant

electrical characteristics for fine reception regardless of loca-tion. Type 59/U is ideal as color TV antenna lead-in. Note: this series is not RG cable; do not include RG prefix in type number when ordering. Bare except *bare copperweld.

Туре	Cond.	O.D.	Imp.	Cap.	Maximum	Cable	100-Ft. Spools		010		500-Ft. Spools		1000-Ft. Spools	
No.	AWG	Inches	Ohms	pF	Volts	Jacket	Stock No.	EACH	Stock No.	EACH	Stock No.	EACH		
F-8/U	13 (7x21)	.405	50	24.5	1500	1	661-4000	25.47	661-4001	113.31				
F-11/U	18 (7x26)	.405	75	16.5	1300		743-4020	24.04	743-4021	110.66				
F-58/U	20 (Solid)	.195	53.5	17.0	1000		861-4040	13.15	661-4041	34.17	661-4042	51.35		
F-59/U	22 (Solid)*	.242	73	17.3	1000	1	661-4070	11.02	661-4071	39.14	661-4072	56.78		

MIL-C-17D TEFLON DIELECTRIC COAXIAL CABLE

Meet all the specifications of MIL-C-17D with the added protection of a Teflon dielectric. Not only does this cable withstand high temperatures but it also possesses excellent all-around

weathering properties. Chemically inert. Insoluble in liquids and/or gases. Available in 100-ft. and/or 500-ft. spools as indicated below. Impedances from .75 to 95 ohms.

RG	Conductor	O.D.	Imp.	Cap.	Maximum	Cable	100-Ft. Spools		500-Ft.	Spools
No.	AWG	Inches	Ohms	pF	Volts	Jacket	Stock No.	EACH	Stock No.	EACH
141/U 178B/U 179B/U 187/U	199 (Solid) 30 (7x28) 7x38 7x38	.195 .072 .105 .110	50 50 .75 75	29 29 19.5 19.3	1900 1000 1200 1200	V IX IX VII	743-2550 743-2940 743-3100	112.22 28.25 48.09 NEW DESIGNATION	743-2941 GN 187A/U	125.25
188/U 188A/U 195/U 196A/U	7x.0067 26 (7x.0067) 7x38 30 (7x38)	.110 .106 .155 .076	50 50 95 50	29 29 15.2 29	1200 1200 1500 1000	VII VII VII VII	743-3180 743-3190 743-3220	NEW DESIGNATION NEW DESIGNATIO	3N 188A/U 743-3181 743-3221	170.34 122.24

75 OHM PRECISION VIDEO CABLES

Type 8281. This double braid 75 ohm video cable is made to extremely tight tolerances for excellent return loss performance. Conductor is polyethylene insulated with tinned copper, double braid shield and black polyethylene jacket of non-contaminating, non-migratory compounds. Nominal core outside diameter of 200". Percent Shield Coverage: 96.4%. Nom. Velocity of Propagation: 66%. Nom. Attenuation per 100': 10 kHz-.08 dB, 100kHz-.08 dB, 1 MHz-.25 dB, 4.5 MHz-.45 dB, 10 MHz-.78 dB, 100 MHz-.70 dB. 100% sweep tested. Typical Application: Video signal transmission in color and monochrome TV studies.

Type 8279. This miniature 75 ohm video cable is for applications where space is a critical factor. Conductor is polyethylene insulated with tinned copper braid shield and black polyethylene jacket of non-contaminating, non-migratory compounds. Nominal core outside diameter of .146". Compacted conductor combines impedance uniformity of solid conductor and "nick-resistance" of stranded conductor. Percent Shield Coverage: 96.4%. Nom. Velocity of Propagation: 66%. Nom. Attenuation per 100': 10 kHz-.14 dB, 100 kHz-.15 dB, 1 MHz-.35 dB, 4.5 MHz-.80 dB, 10 MHz-1.30 dB, 100 MHz-4.90 dB. 100% sweep tested.

	Conductor	or O.D. Imp. Cap.		Cap.	100-Ft. S		250-Ft. S		500-Ft. S		1000-Ft. S	
No.	AWG	Inches	Ohms	pF	Stock No.	EACH	Stock No.	EACH	Stock No.	EACH	Stock No.	EACH
8281 8279	20 (Solid) 23 (7x31)	.304	75 75	21	732-0954	17.93	732-0952	39.08	732-0956 732-0953		732.0957	334.27









Hook-Up Wire

NOTE: See Table A at Bottom of Page for Ordering Information

SEEEEEEE

POLYVINYL CHLORIDE POLYVINYL CHLORIDE INSULATED. Solid or extra stranded tinned copper, color coded medium wall polyvinyl-chloride insulation. (Nominal wall thickness .016").

Characteristics: Temperature rating: -40° C to +80° C. Voltage rating: 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and funders. and fungus.



Tinned copper, vinyl in-sulated, medium wall. Extruded vinyl insula-tion is flame (passes FR-1 vertical flame test) and ozone resistant. Inert to most chemi-cals, oils and solvents.

Type E, extruded. Single conductor, stranded silver-plated copper. Temperature rating: -65° C to +200° C. Voltage rating: 600 V. 010″ nominal thick-

Stranded, tinned copper, color-coded. Min. 0.10" polyvinylchloride insulation. Temperature rating: -55° to +105° C. Rated 600 volts. Resistant to acids, oils, alkalis, flame, moisture, functive.

MIL-W-5086A Type I

MIL-W-5086A Type II

ness.

fungus.

MIL-W-76B TYPE B -- UNCOVERED (PVC) STRANDED

Stock	Mfr's	Ft.	Con	ductor	Nom.	Wt.	Color	EACH
No.	Type	Spool	Size	Strand	Inch	Spool		
708-580N	1550	100	24	7x32	.059	.4 lb.	1 to 4	3.43
708-560N	1550	1000	24	7x32	.059	2.8 lb.	2,3	16.20
708-581N	1551	100	22	7x30	.064	.5 lb.	3	3.83
708-561N	1551	1000	22	7x30	.064	3.6 lb.	1 to 4, 9	13.33
708-583N	1553	100	20	10x30	.073	.6 lb.	1 to 3	4.35
708-563N	1553	1000	20	10x30	.073	4.8 lb.	1,2	15.23
708-585N	1555	100	18	16x30	.084	.8 lb.	1 to 4	5.38
708-565N	1555	1000	18	16x30	.084	7.3 lb.	1,2,4	20.46
708-587N	1557	100	16	26x30	.095	1.2 lb.	1 to 3	7.40
708-567N	1557	1000	16	26x30	.095	11.2 lb.	2	29.43
708-589N	1559	100	14	41x30	.110	1.7 lb.	1 to 3	10.40
708-590N	1560	100	12	65x30	.125	2.6 lb.	2.3	12.43

SOLID												
708-591N	1561	100	22		.060	.4 lb.	1 to 4	3.23				
708-571N	1561	1000	22		.060	3.3 lb.	2.3	14.90				
708-572N	1561/24	1000	24		.055	2.5 lb.	1 to 4	14.23				
708-593N	1563	100	20		.066	.6 lb.	2.3	3.88				
708-573N	1563	1000	20		.066	4.6 lb.	2 to 4	17.10				
708-595N	1565	100	18		.074	.8 lb.	2.3	4.90				

MIL-W-76 TYPE MW -- 80° C. 1000 V

	STRANDED											
732-280N	8520	100	14	41x30	.020	9.0 lb.	1 to 6	10.42				
732-283N	8521	100	16	26x30	.098	6.3 lb.	1 to 6	7.44				
732-284N	8521	1000	16	26x30	.098	12.0 lb.	2,3	38.48				
732-285N	8522	100	18	16x30	.080	4.3 lb.	1,3 to 8	5.35				
732-286N	8522	1000	18	16x30	.080	8.0 lb.	2,3	26.25				
732-288N	8523	100	20	10x30	.070	3.0 lb.	1 to 8	4.47				
732-289N	8523	1000	20	10x30	.070	5.6 lb.	1 to 8	19.83				
732-310N	8524	100	22	7x30	.064	2.3 lb.	1 to 6, 9	3.85				
732-311N	8524	1000	22	7x30	.064	4.3 lb.	1,3,6	17.43				
732-313N	8525	100	24	7x32	.058	2.0 lb.	1 No 8	3.42				
	SOLID											

SOLID											
732-323N 732-326N 732-328N	8530	100	1 22	1	.059	4.0 lb. 2.0 lb. 4.0 lb.	11 to 8	3.90 3.27 13.62			

MIL-W-16878D TEFLON WIRE - 600 V

708-780N	5850	100	32	7x40	.029	.3 lb.	2,9	10.40
708-782N	5851	100	30	7x38	.032	.3 lb.	2,4	8.13
708-784N	5852	100	28	7x36	.036	.2 lb.	2 to 5	7.70
708-785N	5852	1000	28	7x36	.036	1.4 lb.	4	40.97
708-787N	5853	100	26	7x34	.040	.2 lb.	2,3	8.55
708-790N	5854	100	24	19x36	.045	.3 lb.	1 to 5	11.50
708-796N	5855	100	22	19x34	.051	.4 lb.	1 to 5	12.05
708-799N	5855/7	100	22	7x30	.050	.6 lb.	1 to 3, 5	10.80
708-802N	5856	100	20	14x32	.054	.6 lb.	2	14.28
708-808N	5857	100	18	19x30	.070	.9 lb.	2,4,5	13.18
708-820N	5858	100	16	19x29	.077	1.2 lb.	2	16.33

MIL-W-16878/D TYPE B (+105° C)

Stock	Mfr's	Ft.	Conductor		Nom.	Wt.	Color	EACH
No.	Туре		Size	Strand	Inch	Spool		
708-100N 708-010N 708-020N 708-030N 708-040N	7053 7054 7054/19 7055 7055/19	1000 1000 1000 1000 1000	26 24 24 22 12	7x34 7x34 19x36 7x30 19x34	.038 .043 .043 .050	1.5 lb. 2.2 lb. 2.2 lb. 3.0 lb. 3.0 lb.	2 2 to 4 1,2 1,2,4 1 to 4	30.64 21.59 27.34 24.63 39.62
708-050N 708-090N 708-661N 708-616N 708-617N	7056 7058/19 1851 1855 1855/19	1000 1000 1000 1000 1000	20 16 30 22 22	7x28 19x.0117 7x38 7x30 19x34	.058 .077 .032 .050 .050	4.6 lb. 9.0 lb. .8 lb. 3.0 lb. 3.0 lb.	1.2 2 2 9 2	30.60 64.60 16.50 16.80 18.62

MIL-W-5086A UNSHIELDED AIRCRAFT WIRE

MIL-W-5086A TYPE I—single conductor stranded tinned copper, white PVC insulation, clear nylon with polymide jacket overall. MIL-W-5086A II—† single conductor stranded tinned copper, white PVC insulation, white glass braid, clear nylon polyamide jacket overall; ‡ single conductor stranded tinned copper, white PVC insulation, white glass braid with flame retardant nylon lacquered nylon braid overall. Temp. rating:
—55° C to +105° C, 600 V.

Stock Mfr				uuctor	Nom. O.D.	Wt.	Mil	EACH
No.	1 ype	Spool	Size	Strand	Inch	Spool	Туре	
708-5572	1381	100	22	19x34	.068	.6 lb.	AN22-1	7.68
708-5574	1382	100	20	19x32	.078	1.0 lb.	AN20-1	8.58
708-5578	1384	100	16	19x29	.098	1.3 lb.	AN16-1	11.20
708-5564	1343	100	18	19x30	.095	1.2 lb.	AN18-11	13.18
708-5566	1344	100	16	19x29	.105	1.3 lb.	AN16-11	15.13

All hook-up wire on this page is the best engineered hook-up wire available today. One of these wire types should adequately fulfill your exact specifications. If you do not find the hook-up wire you are looking for on this or any other wire page, feel free to contact Allied's nearest sales office . . . we are sure to have it in stock, or readily available for prompt delivery. When ordering note Table A at right for easier filling of your order.

MIL-W-16878 TYPE B VINYL INSULATED -- 600 VOLTS -- +105° C

Each strand double copper tinned. Color coded nom. wall thickness. 010" polyvinylchloride insulation. Temperature rating: -55° C to +105° C. Voltage rating: 600 volts. Resistant to acids, alkalis, oils, flame, moisture, solvents, and fungus. Highly suitable when leads are to be cut and stripped for point to point wiring. Since the individual strands are bonded, expensive induction heating equipment is unnecessary.

Solid silver-plate OFHC

Solid silver-plate OFHC copper conductor. Newly developed Tefzel® insulation provides high temperature; thin-wall suitable for wire wrap insulation. Temperature rating: —100° C to +150° C continuous.

Stranded tinned copper, color coded polyvinlychloride insulation. Temperature rating: UL Style 1007 (CSA Style TR-64), -10° C to +80° C, 300 volts; UL Style 1015 (CSA Style TEW-105), -10° to 105° C, 600 volts

continuous.

Stock Mfr's		Ft.			Nom. O.D.	Wt.	Color	EACH
No.	Type	Spool	Size	Strand	Inch	Spool		
732-348N	8598	100	30	7x38	.032	.25 lb.	1,2	3.60
732-346N	8597	100	28	7x36	.035	.25 lb.	1 to 3,5,9	3.50
732-277N	8505	100	26	7x34	.039	.25 lb.	1.2.4.5.6	3.47
732-274N	8504	100	24	7x32	.044	.25 lb.	1 to 6	3.47
732-275N	8504	1000	24	7x32	.044	2.50 lb.	2,3	15.43
732-271N	8503	100	22	7x30	.050	.50 lb.	1 to 6,8,9	3.92
732-272N	8503	1000	22	7x30	.050	5.00 lb.	2 to 6,8,9	16.93
732-266N	8502	100	20	7x28	.058	.50 lb.	1 to 7	4.82
732-270N	8502	1000	20	7x28	.058	5.00 lb.	2,6	20.44
732-263N	8501	100	18	7x26	.068	.75 lb.	1 to 6,8,9	5.15
732-264N	8501	1000	18	7x26	.068	7.50 lb.	2	26.05
732-260N	8500	100	16	19x28	.077	1.00 lb.	1 to 8	6.57
732-261 N	8500	1000	16	19x28	.077	11.00 lb.	1 to 3,5	34.67
708-700N	3154	100	24	7x32	.044	.30 lb.	1,3	4.33
703-704N	3156	100	20	7x28	.059	.50 lb.	3	6.20

TEFZEL® UL STYLE 1516 COMPUTER WIRE

0	Stock			Conductor		Nom. O.D.	Wt.	Color	EACH
	No.	Туре	Spool	Size	Strand	Inch	Spool		
	708-900N	1805	100	30		.019	.10 lb.	1 to 9	14.43
	708-901N	1805	1000	30		.019	1.00 lb.	1 to 5,9	83.20
	708-902N	1806	100	28		.023	.20 lb.	1,2, 4 to 0	11.83
	708-904N	1807	100	26		.028	.20 lb.	1 to 9	12.58
	708-905N	1807	100	26		.026	1.80 lb.	2	96.41
	708-906N		100	24		.029	.30 lb.		13.98
	708-907N	1808	1000	24		.029	2.60 lb.	2 1	08.67

UL STYLE 1007 - CSA HOOK-UP WIRE 1/64" NOMINAL WALL THICKNESS

	Mfr's	Ft. per	Conductor		Nom.	Wt.	Color	EACH
No.	Type	Spool	Size	Strand	Inch	Spool		
708-910N		100	24	7x32	.057	.28 lb.	1 to 9	3.80
708-912N		100	22	7x30	.065	.38 lb.	1 to 9	4.55
708-914N 708-916N		100	20	10x30 16x30	.071	.50 lb.	1to 3,7to 9 2,3,8	4.95 6.05
708-918N		100	16	26x30	.095	1.08 lb.	2,3,6	8.85

UL STYLE 1015 — CSA HOOK-UP WIRE 1/32" NOMINAL WALL THICKNESS

Stock			Conductor		Nom.	Wt.	Color	EACH
No.	Type		Size	Strand		Spool		
708-950N	3071	100	22	7x32	.095	.60 lb.	1 to 9	4.08
708-952N	3073	100	20	10x30	.102	.75 lb.	1to 4,6,8,9	4.78
708-954N	3075	100	18	16x30	.112	.98 lb.	1 to 5,7-9	5.98
708-956N	3077	100	16	26x30	.125	1.40 lb.	1 to 3,9	7.33
708-957N		1000	16	26x30	.125	14.00 lb.	2,3	38.93
708-958N	3079	100	14	41x30	.142	2.01 lb.	1,2	10.63

UL STYLE 1015 - CSA TYPE TEN

	Stock	Mfr's	Ft.	Con	ductor	Nom.	Wt.	Color	EACH
2	No.	Туре	Spool	Size	Strand	Inch	Spool		
	732-721N	8920	100	22	7x30	.095	3.5 lb.	1to 3, 5 to 8	4.30
	732-720N		100	20	10x30	.102	4.0 lb.	1,2,3.7	5.35
	732-716N		100	18	16x30	.113	5.5 lb.	1 to 8	6.40
	732-717N		1000	18	16x30		11.00 lb.	1 to 3,7	29.66
	732-713N		100	16	26x30	.126	2.00 lb.	1 to 3,7	8.23
	732-714N	8917	500	16	26x30	.126	7.60 lb.	1 to 3	22.44

RX 7000 — IRRADIATED — HEAT RESISTANT — SOLID

Stock No.	Mfr's Type	Ft. per Spool	تنفق	ductor	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-280N 708-290N 708-300N	7161/2	1000 41000 1000	22 24 20		.045 .040 .054	3.0 lb. 3.0 lb. 1.5 lb.	2,3 2,3 1 to 3	23.11 20.29 35.57



Tinned copper. Color coded nom. wall thickness .010" polyvinyl-chloride Insulation. Temperature rating: -55° to +105° C. Voltage rating: 600 volts. Resistant to acids, alkalis, oils, flame, moisture, solvents, fungus.

Vinylidene fluoride in-sulation. Conductor solid OFCH, Tempera-ture rating: to 125° C; U.L. to 105° C.

KYNAR HOOK-UP WIRE

Stock	Mfr's	Ft.	Con	ductor	Nom. O.D.	Wt.	Color	EACH
No.	Type	Spool	Size	Strand	Inch	Spool		
768-888N	773001	1000	30	1	.0195	1.5 lb.	3,5,6,8	56.10
768-887N			28		.0200	2.0 lb.	3,5,6,8	57.75
768-886N	772601	1000	26		.0270	2.5 lb.	3,6,8	56.65

Violet 0

TABLE A — ORDERING INFORMATION

Insert in place of N in Stock No., number of color desired. Individual listings show colors available.

wnite	Green 4	Brown A
Black 2	Yellow 5	Orange 8
Red 3	Blue 6	Grav 9

Specialized Cables, Cords and Wires

TEST PROD WIRE
*Substitute for N in Stock No. 2 for Black, 3 for Red.
† Pair of 5' coiled cords, 1 black and 1 red.

Stock No.*	Mfr's Type	Ft. per	Conductor		Nom. O.D.	.D. per		EACH
	. 100	Spool	Size	Strand	Inch	Spool		
732-602N	8890	100	24	45x50	.066	2.2 lb.	2,3	5.18
732-603N	8890	500	24	45x40	.066	12.1 lb.	2,3	14.70
708-578N	1632	100	20	46x36	.125	1.2 lb.	2,3	8.55
708-579N	1632	500	20	46x36	.125	5.7 lb.	2.3	21.57
758-016N	01326	100	20	41x36	.047	2.0 lb.	2,3	8.10
758-017N	01326	500	20	41x36	.047	11.0 lb.	2.3	20.34
758-014N	01319	100	20	41x36	.047	3.0 lb.	2.3	8.55
758-015N	01319	500	20	41x36	.047	7.0 lb.	2,3	21.54
732-606N	8899	100	18	65x36	.144	2.0 lb.	2,3	8.13
732-607N	8899	500	18	65x36	.144	8.3 lb.	2,3	19.87
758-012N	01321	100	18	65x36	.045	3.0 lb.	2.3	10.20
758-013N	01321	500	18	65x36	.045	8.0 lb.	2.3	25.05
732-604N	8898	100	18	65x36	.230	4.0 lb.	2,3	10.75
732-605N	8898	500	18	65x36	.230	17.1 lb.	2,3	30.48
732-6014	88791	500	20	42x36	.173	.4 lb.		3.75

Breakdown Voltage: Type 8890 — 10,000 volts. Type 1632 — 6,000 volts. Type 01326 — 6,000 volts. Type 01319 — 12,000 volts. Type 8899 — 20,000 volts. Type 01321 — 20,000 volts. Type 8898 — 29,000 volts. Type 8879 — 20,000 volts.

Working Voltage: Type 8890 — 1,000 volts. Type 1632 — 1,500 volts. Type 01326 — 1,500 volts. Type 01319 — 3,000 volts. Type 8899 — 5,000 volts. Type 01321 — 5,000 volts. Type 8898 — 10,000 volts. Type 8879 — 5,000 volts.

HIGH VOLTAGE LEADS

Stock No.	Mfr's Type	Ft. per			Nom. O.D.	Wt.	Jacket Color	EACH	
732-6004	8866	100	18	16x30	.208	2.5	Red	10.38	
732-6010	8870	100	22	Solid	.440	8.3		61.72	

Breakdown Voltage: Type 8866 — 110,000 VDC. Type 8870 — 160,000 VDC. Working Voltage: Type 8866 — 40,000 VDC. Type 8870 — 80,000 VDC.

STATIONARY SERVICE CORD

GIATIONANT SERVICE COND											
Stock No.	Mfr's Type	Ft. per	Conductor		Type	Nom. O.D.	Amps	EACH			
NO.	Type	Spool	No.	Size	Strand		Inch				
732-3215	8478	100	2	18	41x34	SJ	.298	7	13.03		
732-2319	8479	100	3	14	41x30	SJ	.380	15	26.65		
758-0302	01505	100	3	14	41x30	S	.557	15	31.76		
758-0212	01450	100	3	16	26x30	SJ	.360	10	16.28		
758-0213	01450	250	3	16	26x30	SJ	.360	10	32.63		
758-0222	01482	100	3	16	26x30	SJO	.360	10	19.93		
758-0223	01482	250	3	16	26x30	SJO	.360	10	39.84		
758-0218	01479	100	3	18	16x30	SJO	.330	7	14.49		
758-0219	01479	250	3	18	16x30	SJO	.330	7	29.00		
732-2113	8453	100	3	18	41x34*	SV	.265	7	16.23		
732-2115	8454	100	4	18	41x34*		.265	7	18.23		
732-2118	8455	100	3	20	26x34*						
			2	18	41x34*		.280	7	18.03		

Type S (Heavy duty): Also Type SJ (Light duty): tools, power extensions, motor and welding leads, portable machinery, floor polishers and sanders, battery chargers, portable stage tights, garage portable lights, sound equipment, washing machines, refrigerators, sewing machines, and other electrical equipment.

Type SJO: Same as above but for light service only.

Type SV: Vacuum cleaners, home food mixers, office equipment, and other light duty requirements.

SPEAKER WIRE-LAMP CORD (ZIP CORD)

Stock				Condu	ctor	Nom.	EACH
No.	Type	per Spool	No.	Size	Strand	Inch	LAGII
758-2213	01415	100	2	18	41x34	.031	7.20
758-2214	01415	250	2	18	41x34	.0321	13.00
732-3772	8649	100	2	20	7x28*	.073x.146	7.02
732-5323	8782	500	2	24	7x32*	.058x.115	15.00
768-0361	1242T	100	2	24	7x32	.055x.120	4.05
768-0367	1242T	500	2 2	24	7x32	.055x.120	10.02
768-0365	1242T	500		24	7x32	.055x.120	16.28

All clear except (*) brown. Suggested working voltage for all is 300 VAC

*One conductor tinned

RETRACTILE SERVICE CORD NEOPRENE POWER CORDS Rated 300 V, except *600 V.

Stock Mfr'		L.	Conductor			Туре	Nom. O.D.		Amps	EACH
NO.	Туре	Ft.	No. Size Strand		Strand		Inch	0.D.		
708-5302	660/2	2	2	18	41x34	SVO	7/8	.260"	7	11.53
708-5304	660/4	4	2	18	41x34	SVO	7/6	.260"	7	11.88
708-5312	662/4	4	3	18	41x34	SJO	13/8	.350"	7	20.04
708-5313	663/2	2	4	18	41x34	SJO	17/10	.385"	5,6	12.64
708-5315	665/2	2	3	16	65x34	SJO	17/18	.390"	10	16.33
708-5316	666/4	4	4	16	65x34	SJO	11/2	.425"	8	31.16
708-5320	670/4*	4	3	16	41x34	SO	113/10	.470"	10	35.12
708-5321	671/2*	2	4	16	65x34	SO	1%	.500"	8	20.77

					LEPHO			
732-2395	8495	41/2	23	3	21x36	 7/8	.220"	 3.95





Extra flexible stranded tinned soft annealed tinned soft annealed copper conductor. copper conductor, separator, color-coded rubber insulation. —20° C to $+60^\circ$ C. All breakdown voltage and suggested working voltage are AC RMS values. Test lead wire for multimaters are supported to the support of t timeters, analyzers, oscillators, and other applications needing flexible wire



8866: Tinned copper, conductive polyethylene insul., vinyl jacket.

Temp. 8870: Solid copper-weld, conductive poly-ethylene, polyethylene insul., tinned copper braid equipotential sheath, black polyeth-ylene jacket.



Copper tinned, soft an-Copper tinned, soft annealed. Synthetic rubber insulation. Temp. range: —37° C to —140° C. Color-coded conductors: 2 cond.—black, white. 3 cond.—black, white, green. 4 cond. — black, white, green, red. Black Neoprene jacket. For use in areas where exposed to oil, ozone, grease, chemicals or solvents.



Extra-heavy duty. Bare Extra-heavy duty. Bare copper conductors, PVC insulation, one conductor ridged for polarity 1.D., cond for allel, rib-type const. Cable UL listed SPT-1. Temp. range: -20° C to +60° C.



conductor Each stranded copper, with rubber insulation, neoprene jacket overall Temp. -20° C to +60° C. Use on most electric tools, electrical appliances, household appliances.



BRAID AND BONDING CABLES TINNED COPPER TUBULAR BRAID

Stock No.	Mfr's Type	Ft. per Spool	Stranding	Amps	Rounded I.D. Inch	EACH
708-6300	2170	100	36x192	11	13/64	41.32
708-6301	2171	100	36x384	10	1/4	60.57
708-6303	2172	100	36x384	10	3/8	62.42
708-6305	2174	100	36x528	9	1/2	85.59

SHIVER DI ATED THRUHAR BRAID

708-6311	2191	100	36x48	11	1/10	28.22
708-6314	2194	100	36x24	25	1/2	54.17

SHIELDING AND BONDING CABLES

8660	50	96x34	27	9/84	7.05	
8660	250	96x34	27	8/64	20.74	
8668	50	120x34	30	5/32	9.62	
8668	250	120x34	30	5/32	27.65	
8663	50	168x34	38	7/32	11.87	
8661	50	192x34	42	9/32	11.05	
8661	250	192x34	42	9/32	34.36	
8669	50	336x34	61.5	13/32	15.83	
8669	250	336x34	61.5	13/32	74.54	
8672	50	528x36	61		18.03	
8662	250	576x34	88		108.01	
8670	50	480x30	145		35.57	
	8668 8668 8663 8661 8661 8669 8669 8672	8660 250 8668 50 8668 250 8663 50 8661 50 8661 250 8669 50 8669 250 8672 50 8662 250	8660 250 96x34 8668 50 120x34 8668 250 120x34 8663 50 168x34 8661 50 192x34 8661 250 192x34 8669 50 336x34 8669 250 336x34 8672 50 528x36 8662 250 576x34	8660 250 96x34 27 8668 50 120x34 30 8668 250 120x34 30 8663 50 168x34 38 8661 50 192x34 42 8669 50 336x34 61.5 8669 250 336x34 61.5 8672 50 528x36 61 8662 250 576x34 88	8660 250 96x34 27 ½4 8668 50 120x34 30 ½2 8668 250 120x34 30 ½2 8663 50 168x34 38 ½2 8661 50 192x34 42 ½2 8669 250 336x34 61.5 1½2 8669 250 336x34 61.5 1½2 8672 50 528x36 61 8662 250 576x34 88	8660 250 96x34 27 %4 20.74 8668 50 120x34 30 %2 9.62 8663 50 188x34 38 %2 27.65 8661 50 192x34 42 %2 11.87 8661 250 192x34 42 %2 34.36 8669 50 336x34 61.5 1½2 15.83 8669 250 336x34 61.5 1½2 74.54 8672 50 528x36 61 18.03 8662 250 576x34 88 108.01

MICROPHONE CABLES RUBBER, HYPALON, AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Stock	Mfr's	Ft	Co	nduc		Nom. O.D.	Wt. per	EACH
No.	Type	Spool	Size	No.	Strand	Inch	Spool	
732-2024	8410	250	25	1	7x33	.245	9.5 lbs.	45.19
732-2034	8413	100	24	2	45x40.	.190	2.6 lbs.	20.74
732-2031	8412	100	20	2	26x34	.268	5.3 lbs.	22.54
732-2030	8412	500	20	2	26x34	.268	25.8 lbs.	102.90
732-2003	8402	100	20	2	26x34	.268	6.0 lbs.	23.34
732-2065	8428	100	18	2	41x34	.295	6.8 lbs.	29.55
732-2064	8428	500	18	2	41x34	.295	34.8 lbs.	136.27
732-2016	8407	100	16	4	65x34	.422	31.0 lbs.	49.19
732-2015	8407	250	16	4	65x34	.422	34.0 lbs.	120.24
732-2061	8426	100	20	6	26x34	.349	9.5 lbs.	41.58
732-2063	8427	100	20	7	26x34	.360	10.3 lbs.	45.29
732-2044	8418	100	20	8	26x34	.386	11.5 lbs.	51.20

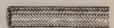
VINYL MICROPHONE AND SHIELD POWER

		301	PPLI	C	ADLES	•		
732-1992	8401	100	25	1	7x33	.200	2.6 lbs.	15.00
732-1993	8401	250	25	1	7x33	.200	6.5 lbs.	19.39
732-1994	8401	500	25	1	7x33	.200	12.5 lbs.	42.18
732-2058	8422	100	22	2	16x34	.231	4.0 lbs.	17.50
732-2059	8422	250	22	2	16x34	.231	9.0 lbs.	31.46
732-2056	8422	500	22	2	16x34	.231	18.3 lbs.	62.92
732-2008	8403	100	20	3	26x34	.244	5.0 lbs.	20.34
732-2009	8403	250	20	3	26x34	.244	11.0 lbs.	41.52
732-2011	8404	100	20	4	26x34	.255	5.5 lbs.	21.94
732-2014	8405	250	20	5	26x34	.275	15.0 lbs.	46.93









Tinned Copper Tubular Brald: Maximum shielding against elec-trostatic interference for wires, cable and other components. Also is a protective cover-ing against mechanical abrasion and stresses. Silver Plated Tubular Braid: High temp. of 200° C. Corrosion resistance.













Shielded single conductor cables are used in high impedence systems, while multiple conductor cables are used in low impedance applications.

8410: Cellulose yard braid, rubber insulated, rayon braid, tinned copper, black rubber 8413, 8412, 8402, 8428, 8407, 8426, 8427, 8418: Tinned copper, cotton wrap, rubber insulated, conductors cabled, rayon braid, black rubber jacket.

8401: Braided textile, polyethylene insulated, tinned copper, chrome vinyl jacket. 8422, 8403, 8404, 8405: Tinned copper, polyethylene insulated, conductors cabled, rayon braid, tinned copper shield, chrome vinyl jacket.

RETRACTABLE MICROPHONE CORDS

Stock	Mfr's	Extends		С	onduc	ctor	Nom.	Wt.	
No.	Туре	From In.	To Ft.	Size	No.	Strand	O.D. Inch	Lbs. Ea.	EACH
732-2020 732-2390 732-2391 732-2397 732-2399	8409 8490 8491 8497 8499	12 11½ 12 11½ 7½	6 6 6 4	28 23 23 23 24	4 5 4 3 1	7x36 21x36 21x36 21x36 45x40	.165 .265 .300 .250 .160	3½ ½ ¼ ¼ ¼ ¼	3.40 4.32 5.00 4.32 2.85

SHIELDED MICROPHONE CABLE WITH BRAIDED SHIELD

Stock	Mfr's Ft.			Condu	ictor	Nom. O.D.	EACH	
No.	Type	Spool	Size	No.	Strand	Inch		
708-6003	1703	100	24	1	10x34	.145	11.55	
708-6012	1706	100	20	1	26x34	.175	20.20	
708-6018	1710	100	22	2	16x34	.230	14.93	
708-6028	1712	100	20	2	26x34	.240	24.93	

					P SHIEL			
708-6000 708-6009	1702 1705	100	26 24	1	34x34 10x34	.110 .110	11.62 15.20	



8409, 8490: Unshielded cords. 8499: Spiral wrap copper shield, other alum. Mylar tape. 8499: Single-cond. 8497: 3 cond. shielded. 8491: 4 cond. shielded. All neoprene jackets.

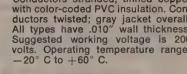


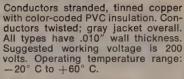
Stranded, tinned copper cond. with color-coded polyethylene insul. Plastic jacket overall (gray, PVC). Suitable for wide variety of mics. 1702, 1705: .020" jacket. 1710: .035" jacket. Others .030" jacket. Wt. all 2 lbs.

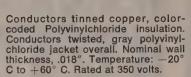
1898

Unshielded Cables

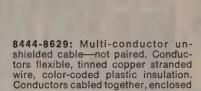








For Public Address Systems and intercoms, speaker extensions. Copper, vinyl-insulated, tinned conductors, Cabled, chrome vinyl jackets. Resists water, oil, grease, sun and ozone. Twisted-pair types without jacket. When ordering, please specify Stock No., Manufacturer's Type and Conductor (Number, Size, Strand).



overall in chrome-vinyl plastic jacket. Suggested working voltages: 22-gauge, 200 volts; 18-gauge, 400 volts; 16- and 14-gauge, 600 volts.

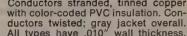
1065-1279: Multi-conductor unshielded cable-not paired. Conductors flexible, tinned copper stranded wire, with color-coded vinyl plastic insulation. Conductors cabled, enclosed in chrome-vinyl.

02404-02412: Multi-conductor unshielded cable-not paired. Control cable. Tinned copper conductors with color-coded PVC insulation, conductors cabled, gray PVC jacket, For control circuits, broadcasting.

1202-1204: Telephone station cable. Solid, annealed bare copper conductor, color-coded polyethylene insulaconductors cabled with PVC jacket overall. Jacket designed to resist weathering and abrasion.

1308-1319: Intercom cable. Each conductor tinned copper, color-coded PVC insulation.

8741-8749: Vinyl intercom telephone cable. Color-coded conductors cabled in pairs. Free from crosstalk and interference. Vinyl insulation for high dielectric strength. Weather and tearresistant. When ordering please specify both Stock No. and Manufacturer's



Stock	Mfr's per			Conduct	ors	0.D.	Wt.	EACH
No.	Туре	Spool	No.	Size	Strand	Inch	Lbs.	
708-5397 708-5398 708-5399 708-5401 708-5402	1172 1173 1174 1176 1177	100 100 100 100 100	2 3 4 6 7	22 22 22 22 22 22	7x30 7x30 7x30 7x30 7x30 7x30	.150 .158 .172 .185 .190	1.3 1.5 2.0 2.6 2.8	6.60 7.95 9.28 19.45 13.80
708-5405 708-5406 708-5407 708-5408 708-5409	1180 1181 1181/15 1181/20 1181/25	100 100 100 100 100	10 12 15 20 25	22 22 22 22 22 22	7x30 7x30 7x30 7x30 7x30 7x30	.235 .255 .280 .310 .340	4.2 5.0 6.2 8.2 10.0	13.83 15.56 26.07 29.88 40.63
	UNSHIE	ELDED A	UDIO	CABL	E - NO	T PAIR	RED	

MULTI-CONDUCTOR UNSHIELDED AUDIO CABLE

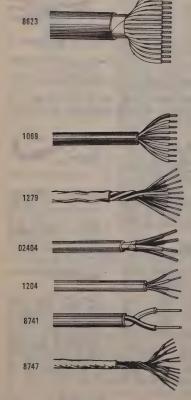
	708-6250 708-6251 708-6252 708-6256 708-6240	1897 1898 1898/6 1898/15 1891	100 100 100 100 100	2 3 6 15 2	18 18 18 18 18	16x30 16x30 10x30 16x30 19x27	.210 .235 .315 .490 .330	2.5 3.0 4.6 18.7 5.0	12.70 21.21 42.03 60.87 16.90
	TW	O AND	THREE	CONDU	JCTOR	UNSH	ELDED	CABL	E
	732-2215 732-5045 732-5047 732-2079 732-2080	8460 8710 8740 8442 8442	100 100 1000 500 1000	2 2 2 2 2 2	18 22 22 22 22 22	7x26 Solid Solid 7x30 7x30	.175 .150 .150 .165	2.2 2.0 14.0 8.5 15.0	10.40 6.72 32.06 72.24 38.08
_	732-0902 732-0903 732-0904 732-2220 732-2221	8205 8205 8205 8461 8461	100 500 1000 100 500	2 2 2 2 2 2 2	20 20 20 18 18	10x30 10x30 10x30 7x26 7x26	.190 .190 .190 .226	2.0 0.3 20.0 0.3 15.0	9.15 22.50 44.89 9.88 33.36
	732-2284 732-2285	8471 8471	500 1000	2 2	16 16	19x29 19x29	.256 .256	19.3 38.8	45.19 90.38
-	732-2081 732-2082	8443 8443	100 500	3 3	22 22	7x30 7x30	.150 .150	2.0 10.0	8.70 23.44

732-2081 732-2082 732-2083	8443 8443	500 1000	333	22 22	7x30 7x30	.150	10.0 20.0	23.44 46.89
	I-CONDL			ELDED		.150 E NO		
			וחכאנ					
732-2084	8444	100	4	22	7x30	.168	2.5	11.50
732-2085	8444	500	4	22	7x30	.168	12.5	49.09
73202086	8444	1000	4	22	7x30	.168	25.0	98.19
732-2087	8445	100-	5	22	7x30	.180	2.75	13.35
732-2088	8445	500	5	22	7x30	.180	13.75	38.07
73202089	8445	1000	5	22	7x30	.180	27.5	76.15
732-2120	8456	100	10	22	7x30	.260	5.25	17.33
732U2121	8456	500	10	22	7x30	.260	26.25	78.75
732-2123	8457	100	12	22	7x30	.260	5.5	19.53
732X2128	8457	500	12	22	7x30	.260	27.5	89.57
732Z2129	8457	1000	12	22	7x30	.260	55.0	137.97
732-2200	8458	100	15	22	7x30	.320	8.0	31.06
732-2126	8459	100	25	22	7x30	.370	11.5	48.59
732U2127	8459	500	25	22	7x30	.370	57.5	222.94
732-2365	8489	100	4	18	16x30	.250	5.25	17.00
732U2367	8489	500	4	18	16x30	.250	26.25	62.22
732-2368	8489	1000	4	18	16x30	.250	52.50	131.12
732-2241	8465	100	5	18	16x30	.272	5.75	17.33
732U2242	8465	500	5	18	16x30	.272	28.75	79.35
732-2250	8467	100	. 7	18	16x30	.320	8.50	23.04
732-2251	8467	500	7	18	16x30	.320	42.50	104.70
732-2275	8469	100	9	18	16x30	.375	10.25	29.85
732-2276	8469	500	9	18	16x30	.375	52.50	138.97
732-2247	8466	100	12	18	16x30	.402	13.50	41.08
732Z2248	8466	500	12	18	16×30	.402	67.50	199.09
732-2270	8468	100	15	18	16x30	.490	18.25	56.11
732-2090	8446	100	6	18,22	16x30	.222	4.50	15.50
732-2091	8446	500	6	18,22	16x30	.222	22.50	56.81
732-2096	8448	100	8	18,22	16x30	.250	5.00	16.33
732-2097	8448	500	8	18,22	16x30	.250	25.00	72.24
700 0000	0.440	400	1 0	40.00	40.00	001	000	47.00

		8629	100	12	14 14	19x27 19x27	.630 .770	23.00 38.30	66. 112.
_	708-5376 708-5378 701-5525 708-5526	1065 1069 1274 1275	100 100 100 100	5 9 4	16 16 14	19x29 19x29 19x27 19x27	.406 .513 .500	10.50 17.00 14.20 18.00	27. 39, 31.
_	708-5528 758-3457 758-3485 758-3489	02404 02420 02421	100 100 100 100	9 4 5 7	18 18 18	19x27 16x31 16x31 16x31	.754 .250 .286 .324	32.50 5.0 6.0 8.0	73. 13. 16. 22.
	758-3481	02412	100	12	18	16x31	.412	14.0	39.

		TELEPH	ONE	STATIC	N CAB	LE						
708-5475 708-5477	1202 1204	100 100	2 4	22 22	Solid Solid	.155 .185	1.7 2.1	6.58 10.04				
MULTI-CONDUCTOR UNSHIELDED CABLE — PAIRED												
708-5530 708-5531 708-5532	1308/11 1317 1319	100 100 100	22 4 8	22 22 22	Solid 7x30 7x30	.380 .225 .260	7.7 2.1 3.3	28.89 10.35 12.53				
732-5048 732-5049 732-5051 732-5052	8741 8741 8742 8742	100 500 100 500	4 4 6 6	22 22 22 22 22	Solid Solid Solid Solid	.201 .201 .240 .240	3.0 14.0 4.3 18.0	11.20 45.19 14.75 41.78				
732-5072 732-5076 732-5077 732-5064 732-5065 732-5066	8753 8754 8754 8747 8747 8748	100 100 500 100 500 100	22 26 26 12 12 12	22 22 22 22 22 22 22	Solid Solid 7x30 7x30 7x30 7x30	.384 .409 .409 .320 .320	9.5 11.3 55.0 8.5 30.0 9.0	30.06 33.66 160.07 19.53 89.07 29.25				
732-5067	8748	500	18	22	7x30	389	50.0	138.07				

100 30 22 7x30 .455 14.N 49.09



732-5085 8749

Shielded Audio and Control Cables

SHIELDED AUDIO CABLE -- BRAID SHIELD

Stock	Mfr's	Ft. Conductor		Nom. O.D.	Wt.	EACH		
No.	Type	Spool	No.	Size	Strand	Inch	Lbs.	EAGII
708-7202	3211	100	2	24	19x36	.152	2.5	13.93
708-7208	3221	100	2	22	19x34	.168	2.8	18.62
758-0502	02679	100	2	22	7x30	.185	6.0	12.88
758-0500	02678	100	3	22	7x30	.200	6.0	13.13
758-0506	02681	100	2	20	10x30	.204	5.0	14.22
758-0128	01332	100	3	20	10x30	.214	8.0	14.69
759-0508	02683	100	4	20	10x30	.232	5.0	16.56
758-0510	02686	100	2	18	16x30	.224	3.0	19.00
758-0512	02687	100	3	18	16×30	.236	4.0	24.74

SHIELDED AUDIO CABLE - SPIRAL SHIELD

758-0516	02882	100	2	22	7x30	.175	4.0	11.40
758-0517	01335	500	2 '	22	7x30	.175	20.0	32.86
758-0131	01335	500	3	22	7x30	.180	13.0	55.61
758-0518	02888	100	2	20	10x30	.195	5.0	14.25
758-0519	02888	500	2	20	10x30	.195	13.0	38.67
758-0520	02892	100	2	18	16x30	.230	7.0	14.88
758-0531	02892	500	2	18	16x30	.230	18.0	50.90

SHIELDED AUDIO CABLE - FOIL SHIELD

708-6355	2461	1000	2 .	22	7x30	.135	14.80	64.91
708-6350	2402	100	2	22	7x30	.170	2.00	12.65
732-2103	8450*	500	2	22	Solid	.118	7.50	26.65
732-2104	8540*	1000	2	22	Solid	.118	15.50	53.30
732-2105	8451†	100	2	22	7x30	.135	1.5	11.80
732-2109	84511	500	2	22	7x30	.135	7.5	30.96
732-2110	8451†	1000	2	22	7x30	.135	15.0	61.92
732-2108	8451*	100	2	22	7x30	.135	1.5	11.80
732-2106	8451*	500	2	22	7x30	.135	7.5	30.96
732-2107	8451*	1000	2	22	7x30	.135	15.0	61.92
758-3671	02514	500	2	22	7x30	.170	9.0	27.05
758-3691	02524	500	2	20	10x30	.195	12.0	34.06
758-3643	02534	500	2	18	16x30	.222	15.0	40.88
758X3644	02534	1000	2	18	16x30	.222	30.0	81.74

*Black vinyl jacket

†Gray vinyl jacket

	SHIELDED	AUDIO	AND	COMM	NUNICA	LION C	ABLE	
732-5016 732-5033 732-5029	8726 8734 8733	100 500 100	12 3 3	22 22 22	7x30 7x30 7x30	.330 .194 .204	7.5 13.0 3.0	71.04 49.98 14.25

SHIELDED AUDIO AND DATA CABLE

708-8710	6010	100	6	22	7x30	.252	5.3	21.36
708-8712	6012	100	12	22	7x30	.342	9.5	43.47
732-5105	8767	100	6	22	Solid	.279	5.0	18.23
732-5108	8768	100	12	22	Solid	.394	9.0	37.27
732-5100	8764	100	18	22	Solid	.440	13.6	86.19
732-5103	8766	100	30	22	Solid	.540	39.0	84.16
732-5121	8777	100	6	22	7x30	.265	4.5	20.64
732-5122	8777	500	6	22	7x30	.265	21.0	96.59
732-5123	8777	1000	6	22	7x30	.265	44.5	193.18
732-5124	8778	100	12	22	7x30	.394	8.5	41.88
732-5125	8778	500	12	22	7x30	.394	45.0	202.86
758-0710	06040	100	6	22	7x30	.270	5.0	19.93
758-0712	06041	100	12	22	7x30	.395	8.0	40.48
758Z0716	06043	100	22	22	7x30	.485	15.0	71.34

SHIELDED SOUND BROADCAST, AUDIO AND INSTRUMENTATION CABLES

732-2078	8441	100	2	22	16x34	.210	2.9	13.38
732-2076	8441	500	2	22	16x34	.210	12.8	49.09
732-0905	8208	100	2	18	16x30	.255	4.3	15.83
732-5313	8772	100	3	20	7x28	.200	35.0	4.52
732-2073	8434	100	4	25	7x33	.165	1.8	13.25
732-2071	8434	500	4	25	6x33	.165	8.5	48.89
732-2072	8434	1000	4	25	7x33	.165	16.3	97.69
732-5009	8723	100	4	22	7x30	.165	2.4	13.40
732-5010	8723	500	4	22	7x30	.165	11.0	48.49
732-5011	8723	1000	4	23	7x30	.165	22.3	96.99
732-5018	8728	500	4	22	7x30	.198	14.0	73.14

SHIELDED CONTROL CABLE

708-5507 708-5509 708-5511 708-5512 708-5515	1250 1251 1252 1252 1255/8	100 100 100 1000 1000	12 3 4 4 8	20 20 20 20 20 20	26x34 26x34 26x34 26x34 26x34	.270 .285 .305 .305 .385	4.5 5.3 6.3 60.3 11.8	17.59 20.14 23.56 211.42 42.20
708-6031 708-6040 708-6056	1713 1716 1721	100 100 100	3 5 10	20 20 20	26x34 26x34 26x34	.250 .275 .375	5.6 7.0 10.0	21.06 26.39 86.19

SHIELDED CONTROL CABLE

758-0410 758-0416 758-0102 758-0104 758-0001	01644 01648 01302 01304 01201	100 100 100 100 100	4 8 2 3	20 20 20 20 20 18	26x34 26x34 26x34 26x34 41x34	.260 .330 .270 .285 .240	6.0 9.0 13.0 11.0 7.0	21.14 42.18 21.74 23.84 22.94
758-0003 758-0005 758-0012	01202 01203 01212	100 100 100	2 3	18 18 18	41x34 41x34 41x34 41x34	.295 .305 555	11.00 7.0 24.00	28.55 42.58 159.72

SHIELDED INSTRUMENTATION STRAIN GAUGE AND COMMUNICATION CABLE

	AND COMMUNICATION CABLE										
732-5012	8724	500	4	22	7x30	.165	11.25	47.59			
732-5007	8722	500	4	20	7x28	.260	18.75	59.61			
732-5008	8722	1000	4	20	7x28	.260	37.50	119.23			
732-5026	8732	100	4	22	7x30	.188x.296	3.0	15.13			
732-5027	8732	500	4	22	7x30	.188x.296	15.00	52.10			
732-5028	8732	1000	4	22	7x30	.188x.296	30.00	104.20			
732-5014	8725	500	8	20	7x28	.360	43.0	192.68			

Shielded Audio Cable (Braid Shield): Type 3211 and 3221 — Meet MIL-W-16878D Type B. Each conductor stranded tinned copper, color-coded .010" PVC insulation; covered with clear, .003" nylon jacket. Cabled, braided tinned copper shield. White PVC jacket. Remainder: Tinned copper conductor, color-coded PVC insulation, conductors twisted, tinned copper braid shield, gray PVC jacket. Shielded Audio Cable (Spiral Shield): Tinned copper cond., color-coded PVC insulation, cond. twisted, tinned copper shield, gray PVC jacket overall.

Shielded Audio Cable (Foil Shield): Tinned copper conductors, color-coded polyethylene insulation conductor cabled wrapped with mylar supported aluminum foil shield, foil facing to outside, stranded tinned copper drain wire, gray PVC jacket overall.

Shielded Audio and Communication Cable: 8726 three quads cabled around common axis. 8734 one shielded. 8733 three shielded.

Shielded Audio and Data Cable: Available in solid or stranded conductor styles, tinned copper conductor, color-coded insulation (solid — .015" PVC. stranded — .08" polypropylene), each pair and its drain wire under aluminum foil/polyester shield. PVC jacket overall. When ordering, please specify stock no., manufacturer's type, and conductor (no., size, strand).

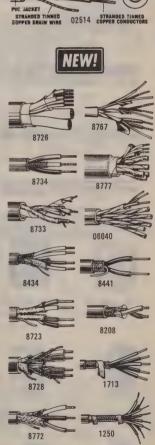
Shielded Sound Broadcast, Audio and Instrumentation Cables. Vinyl Jacket.

Shielded Control Cable. 1250-1255/8. Extremely flexible. Each conductor stranded tinned copper, color-coded. Rubber insulation, cabled with filler. Cotton wrap, braided tinned copper shield, cotton wrap. Rubber jacket overall. (.035" all types). Nominal wall thickness .019". Suggested operating temperature of —20° C to +60° C. Types 1713-1721. Polyethylene insulation, gray PVC jacket.

Shielded Control Cable: Tinned copper conductors, color-coded rubber insulation, cabled, filled, cotton wrap, tinned copper braid shield, cotton wrap, rubber or neoprene jacket. Extra limp, resistant to strong impact and abrasion. Instrumentation cable: 8722 and 8724: 4 vinyl insul. cond., 2 alum. wrapping. 8732: 4 polyethylene insulated cond. 1 pair tinned copper; 1 pair unshielded. All types have chrome vinyl plastic jacket.



WIRE









Intercom and Special Shielded Cables

Communication and Intercom Combination Cable: Each conductor stranded, tinned copper, color-coded PVC or polypropylene insulation, braided, tinned or alum. mylar over conductors forming shield. Unshielded (2) paired. Foll shielded cables have solid tinned copper drain for grounding.

Sound and Intercom Cable: Tinned copper, color-coded PVC. Conductors are twisted and shielded with either a spiral wrapped tinned copper shield (type 692202) or a tinned copper braided shield (742202). —20°C to +60°C. Rated 350 working voltage. 1.020″ nominal jacket thickness.

Spiral Shield Plastic Jacketed Cable: Spiral wrapped copper shield. 85% shielded coverage for audio and RF frequencies. Each conductor stranded tinned copper. Color-coded PVC Insulation. Temp: —20°C to +80°C. All working voltages 350, except *450. All have gray polyvinyl chloride Jacket.

Teflon Impregnated Braid Over Shield: Stranded silver plated copper, Type E extruded .010" TFE Teflon insulation, color-coded, cabled, braided silver plated copper shield, 90% coverage, braided white fused Teflon impregnated, fiberglass braid overall. —65°C to +200°C. For hi-fi and stereos. 600 WVAC.

Shielded Teflon Cables: Same as above, but sintered wrapped white Teflon tape jacketed overall.

Shielded HI-fi and Language Lab Cable: Same as Teflon Impregnated Braid Over Shield, but recommended for language lab equipment.

Type "S" Bus Hookup Wire—To MIL-W-3861, QQ-W-343: Finest soft-drawn solid copper wire; tinned for easy soldering. For non-insulated hookups. Excellent for grounding and tie-in circuits in hi-fi and PA amplifiers.

High-Grade Magnet Wire: Type PE — Plain Enamel Class A (105°). Excellent properties; the oldest and most popular type of film insulated wire in use. Made to the most rigid specifications. Round bare copper single conductor covered with a continuous film of oleoresinous enamel.

Heavy Formvar Magnet Wire: HF — Heavy Formvar Class A 105°C Type T-2. Great film flexibility and resistance to abrasion and solowents. Round bare copper conductor covered with baked film insulation forms a varnish base on a vinyl acetal resin. Double layer of film coating.

Nylon Lacing Tape: Flat-braided high-tenacity nylon yarn impregnated with micro-crystalline fungicidal wax or impregnations to meet military specifications. Avail. In 500-yard spools.

Polyester Lacing Tape: Flat-braided polyester yarn impregnated with special finishes to military specifications. Avail. 500-yd. spools.

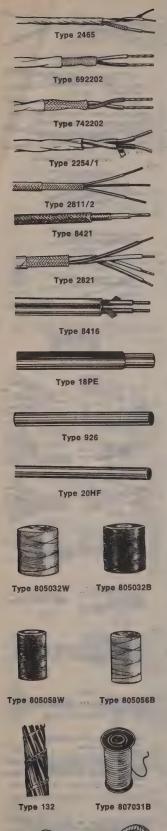
Nylon Lacing Twine: Round twisted nylon fiber impregnated with microcrystalline fungicidal

Finishes and coating for above: W—Wax, Mil Spec B. A microcrystalline fungicidal wax which exceeds military specifications, provides excellent knot retention and is suitable for either lacing or spot ties. G—Synthetic Rubber, Mil Spec C. A special coating of fungicidal synthetic elastomer. Outstanding knot holding characteristics. A—Synthetic Resin, Mil Spec E. Synthetic rubber-like resin formulated with fungicidal ingredients.

Nylon Flat Braided Tape: Provides wider contact area with insulation. More flexible and easier to apply. 500 yds. each.

Finishes for above: GE: Synthetic rubber-like resin formulated with non-mercuric compound which lends the finish fungicidal properties. MW: Microcrystalline wax with a melting point above 130°F with a fungicide which does not contain either copper or mercuric materials. AM: A thermoplastic synthetic resin with a melting point above 350°F for use where a "wax free" type with good knot tying qualities is specified.

Hell-Tube Expandable Cable Harness: Plastic cable harness features strong gripping ability, excellent flexibility; protects against abrasion. Allows individual wire, taps of lead-offs to enter or break out of harness at any point. Made of clean, virgin resin. Wraps on like tape. Impermeable to moisture; resists chemicals, solvents; non-staining; non-toxic.



	COMMUNIC	CATION A	ND IN	TERCON	COM	BINA	ATION	CABLE	
Stock No.	Mfr's	Ft. per Spool		Conduct			Nom. O.	D. Wt. Lbs.	EACH
708-6358	2465	100	No.	Size 20	Strai 7x2		.233	3.8	14.50
700 0040	I 000000 I	SOUNE		INTERC					0.00
768-8810 768-8842	692202 742202	100 100	2 2	22	7x3 7x3	0	.175 .010	2.4 2.0	8.80 18.03
708-6320	SP11	RAL SHIE	LD PLA	ASTIC J.	ACKET 7x3		CABLE .125	2.0	14.95
708-6321 708-6322	2254 2254/3	100	2 3	22	7x3 7x3	0	.187	2.4	12.03 19.05
708-6324	2254/6	100	.6	22	7x3	0	.251	4.3	41.20
708-6325 708-6326	2256/1	100	2 3	20	7x2		.133	2.3 2.7 3.3	15.28
708-6327 708-6329	2256/3	100	3	20	7x2 7x2		.214	3.3 5.0	21.49 53.02
708-63 3 1 708-63 3 2	2258 2258/3	100 100	2 3	18	7x2 7x2	6	.250	3.6	14.73 15.63
708-6333 708-6335	2258/4 2260/3	100	4 3	18 16	7x2 19x2	6	.265	5.0 6.0	43.05 47.26
708-6336	2265°	100	2	14	19x2	7	.345	5.7	46.48
708-6401	2811/2	ON IMPE	2	Z4	19x3		.126	1.0	66.58
708-6515	2821	SHIE 100	LDED '	TEFLON 24	CABL 19x3		.095	.8	42.25
708-6416	2821/2	100	2 2	24	19x3	16	.140	1.3	64.40
708-6422 708-6424	2824/2 2824/3	100 100	3	22	19x3	4	.154	1.4	65.13 95.99
708-6431	6829/3 SHIE	100 LDED HI	-FI ANI	18 D LANG	19x3		.203	3.8 E	129.59
732-2054 732-2055	8421 8421	100 250	1	25 25	7x3 7x3	3	.180	2.0	14.78 21.04
732-2037	8416	250	2	25	7x3	33	.106x.2	4.6	25.75
768-0270	926	100	1	26	O MIL	- W-3	.016	Q-W-343	3.00
768-0271 768-0265	926 924	1000	1	26 24			.016	1 1/4	10.65
768-0267 768-0260	924 922	1000 100	1	24			.020	1½ 1½ ¼	11.85
768-0261 768-0253	922 920	1000 100	1	22 20			.025	2 1/4	14.70 3.45
768-0255	920	1000	1	20		• • • • •	.032	3½	14.93
768-0183	T 18PE	198	-GRAD	E MAGN	VET W	IRE	.0416	1	6.00
768-0185 758-0183	20PE 22PE	313 501	1	20			.0332		3.85 6.00
768-0193 768-0197	24PE 26PE	798 1200	1	24			.0212	1	6.30
768-0215	30PE 32PE	3200 4900	1	30 32	1		.0108	1	7.50 7.65
768-0219	32FE	HEAVY	FORM	VAR MA	GNET	WIR			7.05
768-0184 768-0188	20HF 22HF	313 501	1	20			.0346		8.10 8.85
768-0192 768-0196	24HF 26HF	798 1200	1	24		٠٠.	.0224	1	9.15 10.95
768-0210	28HF	1999 4900	1 1	28			.0144		12.00
768-0218 768-0226	32HF 36HF	12,800	1	36	11000		.0060		11.42
Stock No.	Mfr's Type	Tensile		APE MIL Color	T-434 W. II		YPE I Finish	L. Yds.	EACH
768-9107	805032W	50 lb:	S.	Natural	.09	0	A	500	13.75
768-9106 768-9101	805032B 802534W	50 lbs 25 lbs	S. 25	Black Natural	.09	2	A W	500 500	13.75 12.75
768-9100 768-9109	802534B 805936W	25 lb: 50 lb:	3.	Black Natural	.06	0	W	500 500	11.55 13.75
768-9108 768-9111	805036B 805040W	50 lb:		Black Natural	.09		W	500 500	15.83 13.75
	POLY	ESTER L	ACING	TAPE N	IIL-T-4	3335	T 6		12.70
768-9113 768-9115	805058W 805062W	50 lbs	S	Natural Natural	.09	0	W	500 500	14.85 14.85
768-9114	805062B NY	LON LAC		Black VINE MI	09 L-T-71:		YPE P	500	14.85
768-9117 768-9116	807013B 807013B	70 lb:	s.	Natural Black	.03	9	l W	550 550	16.43 16.43
768-9116 768-9105	804814W	48 lb:	s.	Natural Natural	.02	9	WWW	750 1100	15.40 15.40
768-9103 768-9102	803215W 803215B	32 lbs 32 lbs	S	Black	.02	5	W	1100	16.43
Stock No.	Mfr's Ty		ON FLA	T BRAIL		APE Thick	ness	Finish	EACH
708-4400 708-4401	132BLK 132WH	5	O lbs. O lbs.	3/00		.01	4	GE GE	13.75 12.50
708-4406	134WHI	3	O lbs.	3/32 1/16 3/32 3/32		.01	0	MW	9.38
708-4408 708-4409	136BLK 136WHI	5	O lbs.	3/32 3/32		.01	14	MW MW	10.00
708-4416	143WHI		0 lbs.	JABLE (.01 HA		AM	12.50
Stock	Mfr's	0.D.		scription			P	er 100' Spool	25 !!=
No. 872-3301	HT1/8C	(in.)					-9 .54	10-24 3.63	25-Up 3.03
872-3303 872-3305	HT1/4C HT3/8C	1/8 1/4 3/8 1/2	Pol	Clear lyethylene		13	.54 .25 .12	6.60 10.49	5.51 8.76
872-3307 872-3371	HT1/2C HT1/8UR	1/2		Black	7	15.	.67	12.54 4.07	3.37
872-3373	HT1/4UR	1/4 1/2		lyethylene		9.	.49	7.59	6.33
872-3377 872-3323	HT1/2UR HT1/4FR	1/2 1/4 1/2		White		12.	.35	9.79	9.28
872-3327 872-3343	HT1/4FR HT1/2FR HT1/4N	1/2	Rular	Nylon	s.)	18	.77	15.96 12.02	14.05
872-3345	HT3/8N	1/4	(1	Natural)		29	.22	24.85	21.87
Stock No.	Mfr's Type	0.D. (in.)	Descri	iption 👙	1-9	9	Per 10-2	50' Spool 4 25-49	50-Up
872-3309	HT3/4C	3/4 C	lear Poly	ethylene	17.	35	14.7	6 12.99	12.05
872-3379 872-3381	HT3/4UR HT1/2UR-G	½ . G	ray Poly	yethylene ethylene	20. 12.	39	17.7 10.5	6 15.63 4 9.28	14.51 8.61

Type HT

Cable Clips, Clamps and Ties

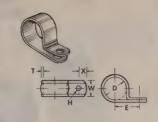
ALLIED CABLE ACCESSORIES

WIRE/CABLE ACCESSORIES

CABLE CLIPS DIMENSIONS (INCHES)

Type	D	E	X	Туре	D	E	Х			
E-2 E-3 E-4 E-5 E-6	1/8 3/16 1/4 6/16 3/8	.360 .423 .457 .498 .529	7/32 7/32 7/32 7/32 7/32 7/32	N-2 N-3 N-4 N-5 N-6	1/8 3/16 1/4 5/16 3/8	.310 .373 .407 .448 .479	5/32 8/32 5/32 5/32 5/32 5/32			
E-7 E-8 E-9 E-10	7/16 1/2 9/16 5/8	.560 .592 .623 .654	7/32 7/32 7/32 7/32 7/32	N-7 N-8 N-9B N-10B	7/16 1/2 9/16 5/8	.510 .542 .623 .654	6/32 5/32 13/64 13/64			
E-11 E-12 E-14 E-16	11/ ₁₈ 3/ ₄ 7/ ₈ 1	.752 .783 .845 .908	7/32 7/32 7/32 7/32 7/32	N-11B N-12B N-14B N-16B	11/16 1/4 7/8 1	.752 .783 .845 .908	13/ ₁₆ -13/ ₁₆ 13/ ₆₄ 13/ ₆₄			

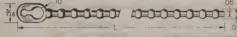
ETHYL CELLULOSE. Withstand age, moisture, corrosion, shock, vibration and temperatures from -40° to +185° F. Meet MIL-242A. T=.060"; W=\frac{1}{2}"; H=.204". Pkg. 100. Av. shpg. wt. 6 oz.



NYLON. Resist temperatures from -60° to $+250^{\circ}$ F. Types N-2 to N-8: $T=.040^{\circ}$; W=%''; H=.167''. Types N-9B to N-16B: T=.060''; W=1/2''; H=.204''. Meet MIL-P17091A. Pkg. 100, Av. shpg. wt. 6 oz.

Stock	Mfr's	PE	R PKC	G. OF	100	Canal	Mfr's	PER F	PER PKG. OF 100		
No.	Type	1- 9	10- 24	25- 99	100-	Stock No.	Type	1- 24	25- 99	100- Up	
		_	24	99	Up						
911-0552	E-2	2.29	1.80	1.60	.95	911-2402	N-2	2.89	1.60	1.30	
911-0553	E-3	2.35	1.88	1.68	1.03	911-2403	N-3	3.05	1.70	1.37	
911-0554	E-4	2.40	1.92	1.72	1.07	911-2404	N-4	3.33	1.88	1.51	
911-0555	E-5	2.60	2.00	1.80	1.15	911-2405	N-5	3.68	2.05	1.65	
911-0556	E-6	2.80	2.08	1.88	1.23	911-2406	N-6	3.87	2.17	1.74	
911-0557	E-7	3.00	2.16	1.96	1.31	911-2407	N-7	4.09	2.29	1.85	
911-0558	E-8	3.40	2.26	2.01	1.39	911-2408	N-8	4.36	2.44	1.96	
911-0559	E-9	3.70	2.40	2.07	1.45	911-2409	N-9B	6.53	3.67	2.95	
911-0560	E-10	4.00	2.60	2.27	1.60	911-2410	N-10B	6.86	3.86	3.10	
911-0561	E-11	4.20	2.80	2.40	1.75	911-2411	N-11B	7.45	4.19	3.37	
911-0562	E-12	5.00	3.15	2.60	2.00	911-2412	N-12B	8.14	4.38	3.68	
911-0564	E-14	6.00	3.85	2.90	2.10	911-2414	N-14B	8.83	4.97	3.99	
911-0566	E-16	7.50	4.80	3.50	2.60	911-2416	N-16B	9.94	5.59	4.49	
011 0000	- 10	7.30	7.00	0.00	2.00	311-2410	14-10D	0.07	0.00		

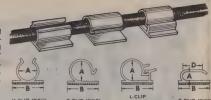
PLASTIC CABLE TIES Bind cables into harness. Plastic (*Nylon). Pkgs. of 1000 only. 4 oz. per pkg.



000 011171 1 0	DED DIG.											
Stock	Mfr's	Size	Color	PER	PKG. OF	1000						
No.	Type	Inches		1-9	10-24	25-Up						
911-0610	EZ-10	4	Red	11.00	9.17	7.85						
911-0602	EZ-2*	5	Nylon	21.00	17.42	14.93						
911-0605	EZ-5	5	Yellow	13.30	11.08	9.50						
911-0609	EZ-9	6	Blue	15.50	12.92	11.07						
911-0614	EZ-14	10	Red	25.10	20.91	17.93						
911-0620	EZ-20	8	Red	20.80	16.67	14.86						

KWIK-KLIP

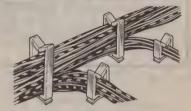
Offer convenient, secure fastening for a variety of electrical applications. Strip off protective backing and press in place permanently. For anchoring cable, tubing, pipe, rod. Constructed of strong, resilient PVC. KKL is locking type. *Holds 3 leads. Shpg. wt. 10 oz.



Stock	Mfr's	Diameter,	WxL	PER	PKG. OF	100
No.	Туре	Inches	Inches	1-9	10-24	25-Up
911-2042	KKU-2	1/8	%x%	7.50	6.00	5.00
911-2044	KKU-4	1/4	%x%	8.50	6.80	5.67
911-2046	KKU-6	3/8	%x%	9.00	7.20	6.00
911-2048	KKU-8	1/2	1x1	9.50	7.60	6.33
911-2052	KKU-12	3/4	1x1	10.50	8.40	7.00
911-2002	KKC-2	1/8	%x%	15.00	12.00	10.00
911-2004	KKC-4	1/4	%x%	11.25	9.00	8.33
911-2005	KKC-5	5/16	%x%	9.00	7.20	6.00
911-2006	KKC-6	3/8	%x%	11.25	9.00	8.33
911-2008	KKC-8	1/2	1x1	16.25	13.00	10.83
911-2012	KKC-12	3/4	1x1	7.50	6.00	5.00
911-2024	KKL-4	7/4	34×34	8.50	6.80	5.67
911-2028	KKL-8	1/2	1×1	9.50	7.60	6.33
911-2032	KKL-12	3/4	1×1	10.50	8.40	7.00
911-2020	KKF-10x4*	5/6×3/4	34×34	15.00	12.00	10.00

WIRE SADDLES

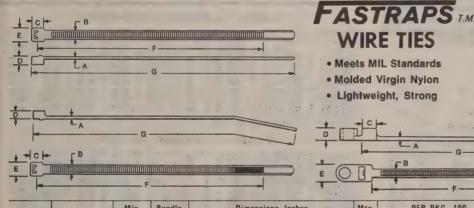
Strong, tough nylon saddles used to channel a group or bundle of wires over a given course. Have a pointed insert that is compressed and easily snapped into punched or drilled .187" diameter holes in a metal chassis where they lock firmly and permanently in place. May be mounted in any position; no tools needed.

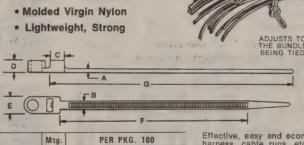


PERMANENT INSTALLATION, NO SHARP EDGES

Low or High **Tensile Strengths**

Stock	Mfr's	Inside Height,	Outside Height	PER PKG. OF 100			
No.	Туре	Inches	Inches	1-9	10-24	25-Up	
911-5091 911-5092 911-5093 911-5094	WS-1N WS-2N WS-3N WS-4N	.225 .450 .800 1.120	.510 .715 1.070 1.390	1.83 1.88 2.40 2.55	1.46 1.50 1.92 2.04	1.22 1.25 1.60 1.70	





21.82

24.76

5.04

5.19

.250 29.72

6.30

6.40

5.5 205

6.75 .205 18.70

21.23

4.20

4 27

16.36

18.57

3.60

3.66

Effective, easy and economical method of bundling Wire harness, cable runs, etc. Molded virgin nylon provides light weight, resistance to absorption, abrasion resistance, high dielectric strength, resistance to solvents. Meets MS3367, 3368, 17821, 17822, 18034, MIL-S-23190C. Styles: Standard Straight Tip (6001, standard duty; 6006, heavy duty). Standard Bent Tip—Easy Thread (6005). Standard, Mtg. Hole (6007, heavy duty; 6008 standard, bent tip.

Canal	986-1-	Min. Tensile	Bundle		Dimensions, Inches				Mtg. Hole		PER P	KG. 100				
Stock No.	Mfr's Type	Strength (Lbs.)	Max. Dia. In.	A	В	С	D	E	F	G	In.	1-9	10-24	25-99	100-Up	
801-0100	6001-400-NAT	18	3/4	.050	.115	.190	.150	.225	3.375	4		2.55	2.04	1.70	1.46	
801-0101	6001-550-NAT	30	11/2	.050	.135	.205	.150	.258	4.875	5.5		3.44	2.75	2.30	1.97	
801-0102	6001-675-NAT	50	13/4	.055	.190	.275	.180	.312	5.875	6.75		4.22	3.37	2.81	2.41	
801-0103	6001-1100-NAT	50	3	.055	.190	.275	.180	.312	10.125	11		8.75	7.00	5.83	5.00	
801-0104	6001-1400-NAT	50	4	.055	.190	.275	.180	.312	13.125	14		9.95	7.96	6.33	5.69	
801-0105	6005-350-NAT	18	5/8	.040	.085	.163	.120	.165	2.625	3.50		2.45	1.96	1.63	1.40	
801-0106	6005-400-NAT	18	3/4	.045	.115	.190	.150	.253	3.375	4		2.55	2.04	1.70	1.46	
801-0107	6005-550-NAT	30	11/2	.055	.146	.220	.190	.260	4.45	5.5		3.44	2.75	2.30	1.97	
801-0108	6005-675-NAT	50	13/4	.055	.190	.275	.220	.320	6.00	6.75		4.22	3.37	2.81	2.41	
801-0109	6006-1400-NAT	120	31/2	.083	.310	.375	.300	.535	11.88	14		12.99	10.82	9.28	8.12	
801-0110	6006-2100-NAT	120	63/4	.083	.310	.375	.300	.520	19.50	21		24.35	20.29	17.39	15.22	
801-0111	6006-2800-NAT	120	8	.083	.310	.375	.300	.520	26.00	28		26.74	22.28	19.10	16.71	
801-0112	6007-1400-NAT	120	4	.083	.310	.375	.300	.535	11.88	14	.250	19.51	16.26	13.93	12.19	

INSTALLATION TOOL

Hand operated GS2B



120

30

50

.083 310 .375 300 520 26 00 28

.050 .135 .210 .150 .258 4.625

.055 .190 .275 .187 .320 6.00

11/2

801-0113 6007-2100-NAT

6007-2800-NAT

6008-550-NAT

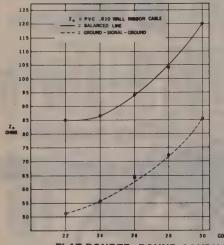
6008-675-NAT

801-0114

801-0115



Offers the advantages of round conductors with no change in mechanical, electrical or physical characteristics of insulation or conducting wires. Patented cohesion processed PVC insulation meets MIL-W-16878D, latest revision, Type B. Temp. range: —55°C to +105°C. 600 volts. Available in standard color code—brown, red, orange, yellow, green, blue, violet, gray, white and black. Range, 10 to 30 conductors; 22 to 30 gauge; 7 to 19 strands.



Exact spacing of cable allows the designer to predict, specify and control capacitance, impedance and other parameters for exact matching with circuit board connectors and hole patterns.

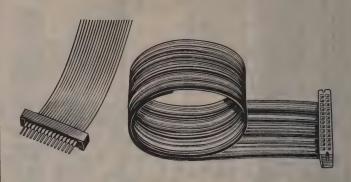
FLAT-BONDED, ROUND-CONDUCTOR CABLE

Stock	Mfr's	Co	nduct	ors	Size	in.	Shpg.	F	PER 100-	FT. RO	LL
No.	Туре	No.	AWG	Strand	s Thk.	Width	Lbs.	1-4	5-9	10-49	50-Up
943-1000	SS-1030-7B	10	30	7	.032	.320	2	30.47	18.81	12.76	11.20
943-1001	SS-1028-7B	10	28	-7	.035	.350	2	27.28	16.83	11.44	10.01
943-1002	SS-1026-7B	10	26	7	.039	.390	3	26.62	16.39	11.11	9.79
943-1003	SS-1024-7B	10	24	7	.044	.440	4	29.20	18.26	12.32	11.00
943-1004	SS-1022-7B	10	22	7	.051	.510	5	37.07	22.88	15.51	13.64
943-1005	SS-1024-19B	10	24	19	.044	.440	4	38.83	23,87	16.17	14.19
943-1006	SS-1022-19B	10	22	19	.051	.510	5	43.34	26.73	18.04	15.84
943-1007	SS-1530-7B	15	30	. 7	.032	.480	2	45.71	28.21	19.14	16.83
943-1008	SS-1528-7B	15	28	7	.035	.525	3	40.92	25.24	17.16	15.02
943-1009	SS-1526-7B	15	26	7	.039	.585	4	39.93	24.58	16.66	14.69
943-1010	SS-1524-7B	15	24	7 -	.044	.660	5	44.55	27.39	18.59	16.50
943-1011	SS-1522-7B	15	22	7	.051	.765	7	55.61	34.32	23.27	20.46
943-1012	SS-1524-19B	15	24	19	.044	.660	5	58.25	35.80	24.75	21.29
943-1013	SS-1522-19B	15	22	19	.051	.765	7	65.01	40.10	27.06	23.76
943-1014	SS-2030-7B	20	30	. 7	.032	.640	3	60.94	37.62	25.52	22.40
943-1015	SS-2028-7B	20	28	. 7.	.035	.700	4	54.56	33.66	22.84	20.02
943-1016	SS-2026-7B	20	26	-7	.039	.780		53.24	32,78	22.22	19.58
943-1017	SS-2024-7B	20	24	. 7	.044	.880	6	59.40	36.52	24.64	22.55
943-1018	SS-2022-7B	20	22	7 .	.051	1.02	8	74.14	45.76	31.02	27.28
943-1019	SS-2024-19B	20	24	19	.044	.880	6	77.66	47.74	32.34	28.38
943-1020	SS-2022-19B	20	22	19	.051	1.02	8	85.68	53.46	36.08	31.68
943-1021	SS-3030-7B	30	30	17	.032	.960	4	91.41	56.43	38.24	33.66
943-1023	SS-3026-7B	30	26	7	.039	1.17	6	79.86	49.17	33.33	29.37
943-1024	SS-3024-7B	30	24.	:7	.044	1.32	8	89.10	54.78	37.14	33.00
943-1025	SS-3022-7B	30	22	7.	.051	1.53	11	111.21	68,64	46.53	40.92
943-1026	SS-3024-19B	30	24	19	.044	1.32	8	116.49	71.61	48.51	42.57
943-1027	SS-3022-19B	30	22	19	.051	1.53	11	122.76	80.19	54.12	47.52
			_								

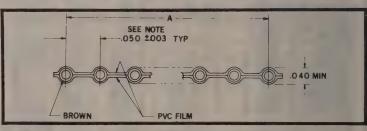
STANDARD COLOR CODE FOR ALL SPECTRA-STRIP BONDED AND 3C CABLE

Spectra-Strip color-coded cables include the following colors in series: Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White and Black (repeat).

TYPE 3C® CONTROLLED CHARACTERISTICS CABLE



Multi-conductor cable with spacing between conductors of .050" and controlled tolerances of $\pm.003$ ". Allows designer to predict, specify, control parameters. Assures exact matching of conductors with connector and circuit board patterns. U.L. Style 2599, wire encapsulated in self-extinguishing clear PVC film. Temp. rating: 80°C. 300 VAC. Min. composite insul. over conductors, .011" thick. Basic wire meets MIL-W-16878D, latest revision, Type B.



28 AWG-7/36 STRAND, COLOR-CODED

Stock	Mfr's	Similar	No. of	Dim. A		PER 100-FT. SPOOL					
No.	Туре	3M No.	Cond.	In.	100'	500'	1000'	5000'			
943-1050	455 044-14	3365-14*	14	.650	30.89	26.40	20.08	17.06			
943-1051	455 044-16	3365-16	16	.750	35.30	30.16	22.99	19.49			
943-1052	455 044-20	3365-20	20	1.000	44.12	37.71	28.73	24.36			
943-1053	455 044-26	3365-26	26	1.250	57.35	49.02	37.35	31.68			
943-1054	455 044-34	3365-34	34	1.650	75.00	63.56	48.84	41.43			
943-1055	455 044-40	3365-40	40	1.950	80.24	75.42	57.46	48.74			
943-1056	455 044-50	3365-50	50	2.450	110.31	94.27	71.83	60.92			

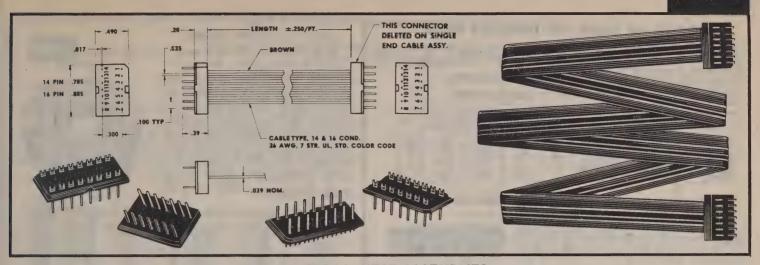
* 3365-14 is all Gray, not color coded.

28 AWG-7/36 STRAND, ALL GRAY

943-1058	455 045-14	3365-14	14	.650	26.94	23.20	17.38	15.09
943-1059	455 045-16	3365-16	16	.750	30.78	26.48	19.90	17.24
943-1060	455 045-20	3365-20	20	1.000	38.48	33.11	24.88	21.55
943-1061	455 045-26	3365-26	26	1.250	50.02	43.04	32.34	28.01
943-1062	455 045-34	3365-34	34	1.650	65.42	56.31	42.31	36.64
943-1063	455 045-40	3365-40	40	1.950	76.96	66.22	49.76	43.10
943-1064	455 045-50	3365-50	50	2.450	96.20	82.79	62.21	53.87

STANDARD 10-COLOR CODING

	14 PIN	WIRE LIST		1.0	16 PIN	WIRE LIST	
Color Code	Cond. No.	Conn. A Pin No.	Conn. B Pin No.	Color Code	Cond. No.	Conn. A Pin No.	Conn. B Pin No.
BRN	1	1	1.	BRN	1	. 11 .	1
RED	2	16	16	RED	2	14	14
ORG	3	2	2	ORG	3	2	2
YEL	4	15	15	YEL	4	13	13
GRN	. 5	3	'3 .	GRN	5	3	3
BLU	6	14	14	BLU	6	12	12
VIO	7	4	4	VIO	7 .	4	. 4
GRY	8	13	13	GRY	- 8	11	11
WHT	9	5	5	WHT	9	5	5
BLK	10	12	12	BLK	10	10	10
BRN	11	6	6	BRN	11	6	6
RED	12	11	11	RED	12	9	9
ORG	13	7	7	ORG	13	7	7
YEL	14	10	10	YEL	14 -	8	8
GRN	15	- 8	8				
BLU	16	9	9				



IC INTERCONNECT ASSEMBLIES

- 26 AWG, 7 Strand Wire Meets MIL-W-16878D, Type B
- Operating Temperature Range of -54°C to +105°C
- For Fast, Efficient IC Assembly Operations
- Available in Standard Ten-Color Coding

Flat ribbon cable assemblies with 14- or 16-pin dual-in-line IC connectors at one or both ends. IC harness assemblies offer predictable, uniform capacitance and impedance. These assemblies make otherwise complicated and costly bussing and crossovers between printed circuit boards, mother boards, backplanes and other IC circuitry efficient, fast, simple and inexpensive. Feature 26 AWG, 7-strand wire to meet MIL-W-16878D, latest revision, Type B. Operating temperature range of -54°C to +105°C. Standard 10-color coding available (See chart on following page). Top entry. When ordering, be sure to include manufacturer's type number.

Stock	Mfr's		No. of Ends			EACH	
No.	Туре	Pins	with Conn.	Inches	1- 49	50- 99	100- Up
943-1150	5132-012	14	2	12	4.63	3.36	3.04
943-1151	5132-024	14	2	24	4.96	3.81	3.04
943-1152	5132-036	14	2	36	5.28	3.95	3.47
943-1153	5132-048	14	2	48	5.62	4.06	3.67
943-1154	5142-012	16	2	12	5.35	3.87	3.49
943-1155	5142-024	16	2	24	5.74	4.15	3.77
943-1156	5142-036	16	2	36	6.12	4.43	4.01
943-1157	5142-048	16	2	48	6.51	4.71	4.26
943-1158	5131-012	14	1 1 1 1	12	2.43	1.76	1.60
943-1159	5131-024	14		24	2.77	1.99	1.82
943-1160	5131-036	14		36	3.09	2.23	2.02
943-1161	5131-048	14		48	3.42	2.48	2.24
943-1162	5141-012	16	1	12	2.79	2.02	1.84
943-1163	5141-024	16	1	24	3.18	2.31	2.07
943-1164	5141-036	16	1	36	3.56	2.57	2.32
943-1165	5141-048	16	1	48	3.96	2.86	2.59

14- AND 16-PIN INTEGRATED CIRCUIT CONNECTORS

- Available in Square, Rectangle Pin Type
- Also Available in Top Entry Cap
- Meets MIL-C-45204, Type II Specifications

High reliability IC connectors have permanent molded-in contact that will not loosen or press out. Pins are .017" x .017" sq. or .017" x .025" rectangle, spring brass gold over nickel plate to MIL-C-45204, Type II. Connector is glass filled nylon. Standard .100" x .300" IC pin spacing. Soldered, "flame-retardant" connectors. When ordering, specify Manufacturer's Type and Stock No.

Courer's Type	e and Stock No.		
		NEW!	
		125	
38	BONDED. TWISTED PAIR RIBBON CABL .010 PVC WALL. CAPACITANCE PER FOOT BETWEEN CONDUCTORS IN TYPICAL PAIR.	115	Zo = BONDED TWISTED PAIR RIBBOM CABLE010 WALL PVC = BALANCED LINE CONFIGURATION
34 32 30		105	
28 26 24		95 90 85 Zo	
/FT 22 20 18		OHMS 80	
16		65	
10	26 26 28	50	22 24 26 28 3

01 1			Di-	EACH				
Stock No.			Pin Type	1- 49	50- 99	100- 499	500- Up	
943-0060	800-031	14	Square	.80	.56	.53	.40	
943-0061	800-032	16	Square	.91	.62	.60	.45	
943-0062	800-033	14	Rectangle	.80	.56	.53	.40	
943-0063	800-034	16	Rectangle	.91	.62	.60	.45	
943-1040	3000-004	14-pin Top	Entry Cap	.22	.15	.14	.13	
943-1041	3000-182	16-pin Top	Entry Cap	.33	.22	.21	.20	

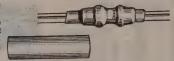
SPECIAL DESIGN SPECTRA-TWIST® CABLE

- Reduction of Crosstalk at Less Cost than Shielding
- Compatible with all Standard Terminating Techniques
- PVC Insulation Meets MIL-W-16878D, Type B, C and D
- Temperature Range: -54°C to +105°C
- Twisted Parts can be Easily Separated for Termination

In communications, data processing, and other areas in which cross-talk in signal transmission must be reduced or long cable runs are encountered, the Spectra-Twist Cable is the most appropriate choice. Pairs of insulated round conductors are twisted together and then bonded by the Spectra-Strip's patented process to form a flat ribbon cable with the same functional advantages of Spectra-Strip Cables in addition to the reduction of crosstalk and attenuation. When ordering, please specify Stock No. and Manufacturer's Type. 100 Ft. Coil Length.

Chaole	Mfr's	Conductors			Width	Thick-	EACH			
Stock No.	Type	-				ness	1-4	5-9	10-49	50-Up
NO.	туре	No.	Size	Strand	Inches	Inches	Coil	Coils	Coils	Coils
943-1030	ST-10247B	10	24	7x32	.440	.044 4	0.55	24.95	14.90	12.42
943 1031	ST-20247B	20	24	7x32	.880	.044 3	6.25	22.40	13.10	11.07
943-1032	ST-10267B	10	26	7x34	.390	.039 8	1.10	49.90	29.80	24.84
943-1033	ST-20267B	20	26	7x34	.780	.039	2.50	44.80	26.20	22.15

Offers all the outstanding electrical, chemical and mechanical advantages of Tefion tubing without drawbacks of high shrinkage temperature requirements. Applied as natural, transparent tubing—requires 200-355°F heat to shrink 50% (2:1 ratio). Natural color. 100-ft package includes 24 pieces in minimum 3-ft lengths, 5 pieces in minimum 1-ft. lengths.



Stock No.	Allied No.	Alpha Equiv.	AWG Size	Expanded 1.D.	Recov.	Nom. Wall Thickness	PKG.
708-4393	AFIT-400-18	FIT-400-18	18	.061"	.049"	.008"	65.13
708-4394 708-4395	AFIT-400-16 AFIT-400-14	FIT-400-16 FIT-400-14	16	.076"	.061"	.009"	35.07 38.25
708-4396	AFIT-400-12	FIT-400-12	12	.116"	.089"	.009"	41.75
708-4397 708-4405	AFIT-400-10 AFIT-400-2	FIT-400-10 FIT-400-2	10	.142" .367"	.114" .280"	.010"	46.09

TYPE APIF-30 PLASTIC-IMPREGNATED FIBERGLASS TUBING

Tough and pliable—provides maximum electrical characteristics, chemical resistance, heat stability, abrasion resistance. Fiberglass base sleeving, coated with plastic insulation. For continuous operation up to 130°C. Will not support combustion. Insulation will not peel, crack or lose dielectric values. Conforms to MiL-L-3190B, Grade B. Av. wt. 2 lbs.



Stock	Allied	Equiv.	AWG	Wall TI	nickness	Approx.	100' COIL
No.	No.	Type	Size	Max.	Min.	T.D.	100 COIL
708-4524	APIF-130/24	PIF-130	24	.022"	.016"	.022"	8.75
708-4520	APIF-130/20	PIF-130	20	.022"	.016"	.034"	7.65
708-4518	APIF-130/18	PIF-130	18	.022"	.016"	.042"	7.75
708-4516	APIF-130/16	PIF-130	16	.028"	.020"	.053"	8.04
708-4514	APIF-130/14	PIF-130	14	.028"	.020"	.066"	8.50
708-4512	APIF-130/12	PIF-130	12	.028"	.020"	.085"	8.76
708-4510	APIF-130/10	PIF-130	10	.028"	.020"	.106"	9.50
708-4506	APIF-130/06	PIF-130	6	.028"	.020"	.166"	12.25
708-4504	APIF-130/04	PIF-130	4	.036"	.026"	.208"	13.50
708-4502	APIF-130/02	PIF-130	2	.036"	.026"	.234"	17.00

ATFT TEFLON EXTRUDED FLEXIBLE TUBING

High resistance to fatigue and repetitive stresses. High temperature "Class C" thin, flexible insulation will not melt or flow. Spaghettl extruded from pure teflon TFE fluorocarbon resinseree of contaminants, stresses; uniform density, color. Non-flammable; unharmed by soldering irons; moistureproof; chemically inert. Dielectric strength: 500-1000 V/mil. No variation of electrical properties. —67° to +250°C. 60 Hz to 100 MHz. Meets MIL-I-22129C, AMS 3651, 3653; Fed. Spec. P-403A. Natural color. See listings at right. Av. wt. 5 oz.



ATFT-200 THIN-WALL TEFLON TUBING

Stock	Allied	Equiv.	AWG	Nom.	Nominal Wall	100′	COIL
No.	No.	Туре	Size	I.D.	Thick.	1-4	5-Up
708-4930 708-4928 708-4926 708-4294 708-4922	ATFT-200/30 ATFT-200/28 ATFT-200/26 ATFT-200/24 ATFT-200/22	TFT-200 TFT-200 TFT-200 TFT-200 TFT-200	30 28 26 24 22	.012" .015" .018" .022" .027"	.009" .009" .010" .010"	11.40 10.11 9.20 9.60 11.00	9.10 8.10 7.35 7.70 8.77
708-4920	ATFT-200/20	TFT-200	20	.034"	.012"	14.35	11.40
708-4919	ATFT-200/19	TFT-200	19	.038"	.012"	15.30	12.25
708-4918	ATFT-200/18	TFT-200	18	.042"	.012"	16.70	13.30
708-4917	ATFT-200/17	TFT-200	17	.047"	.012"	12.73	10.82
708-4916	ATFT-200/16	TFT-200	16	.053"	.012"	13.00	11.05
708-4914	ATFT-200/14	TFT-200	14	.066"	.012"	14.35	12.20
708-4913	ATFT-200/13	TFT-200	13	.076"	.012"	16.20	13.77
708-4912	ATFT-200/12	TFT-200	12	.085"	.012"	17.42	14.81
708-4911	ATFT-200/11	TFT-200	11	.095"	.012"	19.29	16.40
708-4910	ATFT-200/10	TFT-200	10	.106"	.012"	20.79	17.68
708-4908	ATFT-200/8	TFT-200	E	.133"	.015"	32.70	27.80
708-4907	ATFT-200/7	TFT-200	7	.148"	.015"	35.70	30.36

ATFT-250 STANDARD-WALL TEFLON TUBING

Stock	Allied	Equiv.	AWG	Nom.	Nominal Wall	100'	COIL
No.	No.	Type	Size	I.D.	Thick.	1-4	5-Up
708-5024 708-5022	ATFT-250/24 ATFT-250/22	TFT-250 TFT-250	24 22	.022"	.012" .012"	12.40 13.70	9.92 10.96
708-5020 708-5018	ATFT-250/20 ATFT-250/18	TFT-250 TFT-350	20 18	.034"	.016"	18.55 14.80	15.77 12.58
708-5014 708-5012	ATFT-250/14 ATFT-250/12	TFT-350 TFT-350	14	.066"	.016" .016"	19.21	16.33 19.67

MOLDED AFIT®-CAPS

Shrink when Heated to 275°F to Form a Rigid, Permanent Encapsulation

When heated, shrink to form permanent encapsulation without molding, potting, special tools. Supplied at "Min. I.D.", shrinks to "Recov. I.D." when heated to 275°F. Pkg. of 25 only. 6 oz.



Stock No.	Allied :	Alpha Equiv.	Min. I.D.	Recov.	Wall Thick.	Nom. Lgth.	Color	PER PKG.
708-3722	ACAP-22	CAP-22	.25"	.12"	.05"	1.15"	Black	15.87
708-3727	ACAP-27	CAP-27	1.50"	.75"	.10"	4.00"	Black	59.70

APVC-105 PLASTIC TUBING

ASTM D-876, D-9222, MIL-1-6310 Type F, Form U, Grade C, Class 1, Category 1

Porm U, Grade C, Class 1, Category 1
Designed and manufactured for general electronics, aircraft and electrical applications.
Polyvinylchloride plastic tubing rated for temperatures as high as 105°C. High dielectric strength unaffected by temperature rise. High resistance to heat, oll, chemical corrosion and fungl with no loss in tensile strength or flexibility. Exceptional resistance to abrasion. Indefinite shelf life. Compounded with first quality, non-migratory resinous type plasticizers. Even under adverse conditions PVC-105 retains its flexibility permitting it to protect irregular shapes. "Snakes" well under all environmental conditions. Available colors: black or clear. Available only in 100-ft coils. U.L. listed.

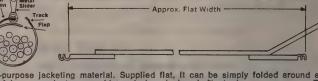


NEW!

Stock No. Clear	Stock No. Black	Mfr's Type- Size	1.D.	Wall Thk.	100' Coil
708-4728	708-4726	APVC105-24	.022	.013	2.48
708-4720	708-4718	A PVC105-22	.027	.012	2.53
708-4712	798-4710	A PVC105-20	.034	.016	2.55
708-4703	708-4701	A PVC105-18	.042	.016	2.65
708-4696	708-4894	A PVC105-16	.053	.016	2.75
708-4687	708-4885	APVC105-14	.066	.016	2.85
708-4680	708-4678	A PVC105-12	.085	.016	2.98
708-4672	708-4670	A PVC105-10	.106	.016	3.15
708-4683	708-4661	A PVC105-8	.133	.020	3.95
708-4657	708-4655	A PVC105-6	.166	.020	4.28
708-4650	708-4648	A PVC105-4	.208	.020	4.73
708-4642	788-4640	A PVC105-2	.263	.020	5.45
	708-4604	A PVC105-5/16	.312	.025	7.50
708-4611	708-4610	A PVC105-3/8	.375	.025	8.55
708-4616	708-4615	A PVC105-1/2	.600	.025	9.40
	708-4621	A PVC105-%	.625	.030	8.15

AZIP 31 ALL PURPOSE ZIPPER TUBING

CROSS SECTION
Zipper Metal
Portion Slider
Sheet Approx. Flat Width



PVC all-purpose jacketing material. Supplied flat, it can be simply folded around any length of inner conductor or cable and zipped closed. No tools are necessary. The special patented track may be manually interlocked or zipped with the metal sliders supplied. (Additional sliders may be ordered below.) Tubing designed to close firmly and remain closed even when bent. Yet, it is simple to open when necessary. Circuit changes may be made at any time without slicing or destroying the existing jacket. Available in 100-ft coils only.

Stock No.	Mfr's Type	Diameter	Approx. Flatwidth	100' Coil
708-5220	AZIP31-%	3/4"	23/4"	54.11
708-5230 708-5260	A ZIP31-1 A ZIP31-2	2	3% 6%	56.11 66.13
708-3529	AB-295. Metal Slider.	1-4 Each .09	5-9 Each .07 10 -Up	Each .06

AFIT® TUBING KIT

Popular Assortment of Allied FIT Tubing Types in Compact, Plastic Carrying Case

Engineering or prototype sampler kit. Contains a variety of sizes and colors of all Allied FIT shrinkable tubing types. Packaged in a handy compartmented plastic case. FIT tubings are supplied in the expanded state. Application of heat shrinks the tubing to a skin-tight covering. Especially useful in lab, experimentor's shop. Wt. 2 lbs. 708-3775. Each 23.38



IRRADIATED POLYOLEFIN AFIT®-CAPS

Tight-Fitting Mechanical Bond Over Termination for Fine Insulation

Short lengths of semi-rigid tubing sealed on one end. Shrinks (2:1) within 7 sec. when 275-300°F is applied. Pkg. of 100 only. 6 oz.



Stock No.	Allied No.	Alpha Equiv.	Min. 1.D.	Recov.	Wall Thick.	Nom. Lgth.	Color	PER PKG.
708-3701	ACAP-1	CAP-1	.063"	.025"	.016"	3¼"	White	8.38
708-3702	ACAP-2	CAP-2	.125"	.050"	.020"	1"	Red	10.50
708-3703	ACAP-3	CAP-3	.250"	.100"	.025"	1¼"	Grey	14.18
708-3704	ACAP-4	CAP-4	.500"	.250"	.040"	1½"	Black	27.69

ALLIED "FIT®" SHRINKABLE PRODUCTS

YOUR CHOICE OF:

 Semi-Rigid Kynar™ Surface-Irradiated Polyolefin Irradiated Polyolefin • Irradiated Polyvinyl Chloride Teflon FEP

AFIT Type	Characteristics
AFIT-105	Irradiated Polyvinyl Chloride (PVC): flexible and resistant to abrasion. Good insulation properties. Color: Black only.
AFIT-221	Irradiated Polyolefin: flexible, abrasion resistant, non-flammable. Available from stock in black, red, white.
AFIT-300	Surface irradiated Polyolefin: outer wall shrinks, inner wall melts. Moistureproof; high mechanical strength.

AFIT Type	Characteristics
AFIT-350	Semi-rigid Kynar: non-flammable tough fluorocarbon, high temperature solvent resistant. Non-flammable, won't cold flow or melt. Color: clear.
AFIT-400	Teflon FEP: 400°C operating temperature; especially designed for use with heat sensitive components, solid-state devices, solder joints without damage. Transparent.

AFIT®-105 IRRADIATED PVC FLEXIBLE TUBING

- Available in a Wide Range of Sizes from ¾4" to 2"
- Shrinks in Only 7 Seconds when Heated to 325°F

Provides snug flexible insulation. Excellent for insulation over splices. Supplied at "Min. I.D." size; shrinks to *"Recov. I.D." size in only 7 seconds when heated to 325°F, Available from stock in Black. Av. shpg. wt. per 100-ft. coil, 1½ lbs. Inquire for prices on larger quantities or other colors than those shown in table below.

- · Flexible and Resistant to Abrasion
- Choose 25' Colls, 100' Colls or Package Assortments

708-3801. FIT-105-MS-1 Assortment. Contains ten 6-in. lengths each of six sizes from \(\frac{1}{2} \) through \(\frac{1}{2} \) +in. (60 pieces). Shpg. wt. \(\frac{1}{2} \) lb. ... Each 8.05 708-3802. FIT-105-MS-2 Assortment. Contains ten 6-in. lengths each of four sizes from \(\frac{1}{2} \) through 1-in. (40 pieces). Shpg. wt. \(\frac{1}{2} \) lb. ... Each 10.78



Shrinkage of 50% on Application of Heat-Ideally Suited for **Insulating Components** and Cables with a Wide Variation In Shape and Diameter-Forms a Permanent, Tight-Fitting Mechanical Bond

Size	Min. I.D.	Recov. I.D.	Wall Thick.	Allied Type	Equiv.	Stock No.	Wt., Lbs.	Per 25' Coil	Stock No.	Wt., Lbs.	Per 100' Coil
3/64"	.046"	.023"	.020"	AFIT-105	FIT-105	708-3804	.1	3.90	708-3807	.1	14.30
: 1/18"	.062"	.031"	.020"	AFIT-105	FIT-105	708-3810	.1	3.80	708-3813	.3	14.98
1/8"	.093"	.046"	.020"	AFIT-105	FIT-105	708-3817	-1,	4.33	708-3820	1.5	16.43
			.020"	AFIT-105	FIT-105	708-3823	.2	5.00	708-3827	1.1	13.62
3/16"	.197"	.093"	.025"	AFIT-105	FIT-105	708-3830	.3	6.18	708-3833	1.4	16.22
1/4"	.250"	.125"	.025"	AFIT-105	FIT-105	708-3837	.4	7.75	708-3840	1.4	21.80
3/8"	.375"	.187"	.030"	AFIT-105	FIT-105	708-3843	.5	8.98	708-3847	2.0	22.63
1/2"	.500"	.250"	.030"	AFIT-105	FIT-105	708-3850	.8	10.17	708-3853	4.5	25.68
3/4"	.750"	.375"	.035"	AFIT-105	FIT-105	708-3857	1.3	12.88	708-3860	5.0	34.37
1"	1.000"	.500"	.040"	AFIT-105	FIT-105	708-3863	2.2	12.58			
11/2"	1.500"	.750"	.045"	AFIT-105	FIT-105	708-3867	3.9	19.62			
2"	2.000"	1.000"	.050"	AFIT-105	FIT-105	708-3870	5.6	28.94			

AFIT® -300 SURFACE-IRRADIATED POLYOLEFIN TUBING

- Outer Wall Shrinks at 275°F while Inner Wall Melts and Flows Provides a Tough, Moistureproof Encapsulating Jacket
- Excellent for Encapsulation of Components, Electrical Cable Junctions and Splices, as a Mechanical or Vibration Shield

For permanent, moistureproof encapsulation of components, cables, splices, etc. When a temperature of 275°F is applied, outer wall shrinks while the inner wall melts and flows, eliminating voids and providing moistureproof encapsulation. Supplied at "Min. I.D." size; shrinks to "Recov. I.D." with use of hot air gun, radiant heat, hot liquids. *Indicates heavywalled tubing for use where much meltable material is required. Color coded by size. Available in 4-foot lengths or 6-inch lengths. Shpg. wt.: 4-ft. lentghs, 1½ lbs.; 6-in., 4 oz. o-citshbete

		Min.	Recov.	Wall	Allied		4-F0	OT LENGTH	S	6-INCH	LENGTH	S
Size	Color	I.D.	I.D.	Thick.	No.	Equiv.	Stock No.	Lengths Per Pkg.	PER PKG.	Stock No.	Lgths. Per Box	PER BOX
1/4"	Brown	.125"	.023"	.038"	AFIT-300	FIT-300	1 1 1			708-4105	14	7.80
3/16"	Gray	.060"	.012"	.043"	AFIT-300	FIT-300	708-4120	25	44.51	708-4115	16	7.80
· 1/4"	White	.080"	.015"	.047"	AFIT-300	FIT-300	708-4130	. 25	55.53	708-4125	10	7.80
3/8"	Red	.375"	.135"	.050"	AFIT-300	FIT-300		2.1	3	708-4145	8	7.80
1/2"	Blue	.500"	.195"	.055"	AFIT-300	FIT-300	708-4160	5	14.60	708-4155	6	7.80
3/4"	Yellow	.750"	.313"	.065"	AFIT-300	FIT-300	708-4170	.5	22.53	708-4165	4	7.80
3/10"	Blue	.300"	.050"	.100"*	AFIT-300	FIT-300	1777		5	708-4135	4	7.80



AFIT®-221 POLYOLEFIN SHRINKABLE TUBING

- Shrinks 50% (2:1 Ratio) with 5% Longitudinal Shrinkage
- Shrinks 50% (2:1 hato) with 5% Longitudinal Shrinkse
 Irradiated, Thermally Stable, Modified Polyolefin Base
 Replaces FIT-275. Shrinks (2:1) to *Recovered Inside Diameter in just 7 seconds. An all-purpose polyolefin extruded tubing in an expanded form Silps over irregularly shaped material. When temperature of approx. 275°F is applied for 7 seconds, it returns to predetermined size. Select
- Will Not Cold-Flow or Melt, but Retains Form Stability Available in a Wide Range of Colors and Sizes
- color desired, read down column for size to complete Stock No.

 FIT-221 Packaged Assortments. 6" lengths, assorted colors. Wt. ½ lb.
 708-3901. FIT-221MS1. ¾ through ¾6" (30 lengths)......Each 7.70
 708-3902. FIT-221MS2. ¼ through ¾4" (16 lengths)......Each 10.25

4-FOOT LENGTHS (Av. shpg. wt. 11/2 lbs.).

Stock	Black	Red	White	Allied	Equiv.	Size	Min.			Lengths		
No.	BILLOK	1100	***************************************	No.	Equis.	OILU	I.D.	1.D.*	Thick	per Box	1-4	5-9
708X	-3908	-3909	-3910		FIT-221	3/64"	.050"	.023"	.016"			13.12
708X	-3916			AFIT-221	FIT-221	1/16"	.062"	.031"	.017"			14.50
708X	-3924		-3926		FIT-221	3/32"	.093"	.046"	.020"			15.20
708X	-3931	-3932	-3933	AFIT-221	FIT-221	1/8"	.125"	.062"	.020"	25	20.00	16.98
708X	-3939	-3940	-3941	AFIT-221	FIT-221	3/16"	.191"	.089"	.020"			21.00
708X	-3947	-3948	-3949	AFIT-221	FIT-221	1/4"	.250"	.125"	.025"			28.00
708X	-3955		-3957		FIT-221	3/8"	.378"	.178"	.025"			34.50
708X	-3963	-3964	-3965	AFIT-221	FIT-221	1/2"	.500"	.250"	.025"	5	11.50	10.65
708X	-3971	-3972		AFIT-221	FIT-221	3/4"	.750"	.375"	.025"	5	15.37	10.00
708X	-3979	-3980		AFIT-221	FIT-221	1"	1.000"	.500"	.035"			12.23
708X	-3987			AFIT-221	FIT-221	1½"	1.500"	.750"	.040"			21.00
708X	-3993			AFIT-221	FIT-221	2"	2.000"	1.000"	.045"			26.58
708X	-4000			AFIT-221	FIT-221	3"	3.000"	1.500"	.050"	2	19.79	18.15

6-INCH LENGTHS (Av. shpg. wt. 4 oz.)

Stock No.	Black	Red	White	Allied No.	Equiv.	Size	Min. I.D.	Recov.	Wall Thick	No. Lgths Per Box	. PER BOX
708	-3904	-3905	-3906	AFIT-221	FIT-221	3/84"	.050"	.023"	.016"	40	6.90
708	-3912	-3913		AFIT-221	FIT-221	1/18"	.062"	.031"	.017"	36	6.90
708	-3920	-3921		AFIT-221	FIT-221	3/32"	.093"	.046"	.020"	32	6.90
708	-3927	-3928	-3929	AFIT-221	FIT-221	1/8"	.125"	.062"	.020"	28	6.90
708	-3935	-3936	-3937	AFIT-221	FIT-221	3/16"	.191"	.089"	.020"	24	6.90
708	-3943			AFIT-221	FIT-221	1/4"	.250"	.125"	.025"	20	6.90
708	-3951	-3952	-3953	AFIT-221	FIT-221	3/8"	.378"	.178"	.025"	16	6.90
708	-3959	-3960	-3961	AFIT-221	FIT-221	1/2"	.500"	.250"	.025"	14	6.90
708	-3967		-3969	AFIT-221	FIT-221	3/4"	.750"	.375"	.030"	12	6.90
708	-3975			AFIT-221	FIT-221	1"	1.000"	.500"	.035"	8	6.90
708	-3983		-3985	AFIT-221	FIT-221	11/2"	1.500"	.750"	.040"	5	6.90
708	-3990				FIT-221	2"	2.000"	1.000"	.045"	3	6.90
708	-3996			AFIT-221	FIT-221	3"	3.000"	1.500"	.050"	2	6.90

AFIT®-350 IRRADIATED KYNAR™ SHRINKABLE TUBING

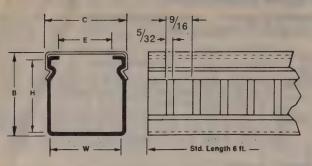


Tough semi-rigid polyvinylidene fluoride that can be repeatedly flexed, bent or twisted without losing its mechanical or electrical strength. Withstands continuous operating temperatures of —55°F to +175°F. Supplied at Minimum Inside Diameter (Min. I.D.). Size shrinks to Recovery Inside Diameter (Recov. I.D.) when heated to 347°F. 21 shrinkage ratio. Longitudinal shrinkage only 5%. Non-flammable, will never cold flow or melt. Clear only. Av. shpg. wt.: 6" lengths, 4 oz. 4' lengths, 1 lb.

0:	Min.	Passer	Recov. Wall	Allied	Alpha -	4-F00	T LENGTH	S	6-INCH LENGTHS			
Size	1.D.	Recov.	Thickness	No.	Equiv.	Stock No.	Lgths. Per Box	PER BOX	Stock No.	Lgths. Per Box	PER BOX	
3/64" 1/16"	.046"	.023"	.010" .010"	AFIT-350 AFIT-350	FIT-350 FIT-350	70074240	25	20.14	708-4303 708-4309 708-4315	32 28 24	8.00	
3/32" 1/8" 3/18"	.093" .125" .187"	.046" .062" .093"	.010" .010" .010"	AFIT-350 AFIT-350 AFIT-350	FIT-350 FIT-350 FIT-350	708X4318 708X4324 708X4330	25 25 25	29.14 32.06 49.77	708-4313 708-4321 708-4327	20 16	8.00 8.00 8.00	
3/1e" 1/4" 3/4"	.250"	.125"	.012" .012"	AFIT-350 AFIT-350	FIT-350 FIT-350	708X4336	25	62.46	708-4333 708-4339	12	8.00	
1/2"	.500"	.250"	.012"	AFIT-350	FIT-350	708X4348	5	24.55	708-4345	4	8.00	

Wire and Cable Clips and Accessories

ELECTRO-DUCT® PLASTIC WIRING DUCT

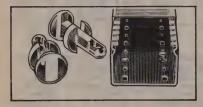


- Interlocking Cover and Channel Design
- Adhesive Mounting for Easy, Safe Drilling Alignment
- Immune to Most Environmental Hazards

High-impact, rigid vinyl duct will not peel, chip or crack, even under adverse conditions. Withstands temperatures up to 150°F. Resists oil, grease, salt solutions, most mildly concentrated acids and fungus. Completely non-flammable, warp-proof and non-brittle. Temporary adhesive mounting assures easy and safe drilling alignment. Simply peel off the adhesive covering, press duct into mounting panel and drill through, aided by the indented "drill hole starter." You achieve perfect alignment with no need to hold the duct in place with your hand. Interlocking cover and channel design provides snap-on, non-slip assembly to eliminate vibration slippage. Cover and channel forms firm, rigid duct. Snap-off plastic fingers permit enlarging slot for leadoffs of any size wire and/or wire bundles. Pre-scored for smooth, snap-off surface. Smooth, rounded edges on both channel and cover prevent cutting and abrasion during handling. Cover flange keeps lead-off wires positioned in center of duct. Open-slot design permits insertion or removal of wires with terminations attached, without deflecting the plastic fingers. Eliminates threading of wire through duct holes. Easy to cut using only a fine-toothed hand or power cutting tool. CSA approved. Sold only in multiples of 6 feet. Gray color (White also available on request).

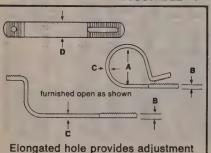
Stock Mfr's		Nom. WxH	Dimensions (Inches)				Pkg. V	Shpg. Wt.	Price per 6' Piece			
No.	Type	in.	В	Н	C	W	E	Ft.	Lbs./ 100'	1-9	10-24	25-Up
787-1010	1010A-G	1x1	113/16	1	17/32	1	1/2	96	21	7.35	5.80	4.90
787-1020	1020A-G	1x2	27/32	2	17/32	1	1/2	90	32	9.75	7.80	6.50
787-1030	1030A-G	1x3	27/32	3	17/32	1	1/2	60	40	12.00	9.60	8.00
787-2010	2010A-G	2x1	13/16	1	29/32	2	11/2	108	32	10.35	8.28	6.90
787-2020	2020A-G	2x2	23/16	2	29/32	2	117/32	54	47	12.90	10.32	8.60
787-2030	2030A-G	2x3	31/4	3	28/32	2	117/32	36	55	10.60	9.49	8.48
787-3010	3010A-G	3x1	13/10	1	33/32	3	21/2	60	40	13.05	10.44	8.70
787-3020	3020A-G	3x2	23/18	2	3%32	3	21/2	36	55	10.60	9.49	8.48
787-4030	4030A-G	4x3	31/4	3	45/18	4	31/2	24	90	15.30	13.70	12.24
787-4040	4040A-G	4x4	41/4	4	45/16	4	31/2	12	110	17.90	16.03	14.32

PLASTIC SPEED FASTENER FOR PVC DUCT



Type QR-316. Nylon speed fastener for quick, efficient "push-fit" mounting of Electro-Duct or for other panel mounting applications. Available in one size only-will fit \(\frac{\psi}{n} \) diameter \(\pm \).005 hole opening with a panel thickness range of 156 to .281". Provide secure, insulated and corrosion resistant mounting. Hand installation—no tools required. Sold only per package of 100. Shpg. wt.: 3 oz. Shpg. wt.: 3 oz. 787-4308. Per Pkg. of 100.....3.50

ADJUSTABLE "P" CLIPS



range specified for dimension "A"

• Adj. for Controlled Tension
Provides excellent service indoors
and out. Bottom lip is designed
with an elongated hole. Top lip
can be slid forward or backward
along any portion of bolt to hold
wide range of bundle diameters.
Ratchet teeth gives positive locking with no slippage, even under
ribration or shock conditions.
Lightweight virgin nylon, abrasion
resistant. Tensile strength: 9,000
psi. Melting point: 430°F. Selfextinguishing. Endurance: 3,000
psi. No failures to 2,000 cycles.
Sold only in multiples of 100.
Shpg. wt.: 8 oz.

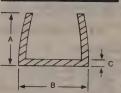
For Bundles 1/8 to 2"
Adj. for Controlled Tension

Stock	tock Mfr's Dia. (In.)			Dimensions (Inches)			Per Pkg. 100		
No.	Type	Min-Max	В	C	D	Screw Clearance	1-9	10-24	25-Up
787-2500 787-2501 787-2502 787-2503	AP-0 AP-1 AP-2 AP-3	1/6 - 3/16 3/16 - 1/4 1/4 - 3/6 3/6 - 3/16	.060 .046 .051 .056	.025 .025 .030 .035	.250 .250 .312 .375	No. 4 No. 4 No. 6 No. 6	5.00 5.18 5.45 6.63	4.00 4.14 4.36 5.30	3.33 3.45 3.63 4.42
787-2504 787-2505 787-2506 787-2508	AP-4 AP-5 AP-6 AP-8	% -1% 13/16-11/2 13/4 -2	.062 .083 .083 .093	.040 .055 .060 .070	.500 .550 .560 .560	No. 6 No. 10 No. 10 No. 10	8.63 11.35 14.08 13.48	6.90 9.08 11.26 11.56	5.75 7.57 9.38 10.11

POLYETHYLENE GROMMET STRIPS







- Versatile and Economical
- No Special Tools Required
- Impervious to Dampness, Acids, Oils, Corrosion
- Available in 6 Sizes
- **Meets MIL Specifications**

The most versatile and economical grommet available. Continuous length, one strip material designed for all sizes of cutouts in panels and sheet fabricated equipment. Made of natural, low density polyethylene. Just "snip-nfit" to any size or shape opening: round, square, rectangular or oval. The six sizes listed will meet nearly all requirements from 20 Gauge sheet to ¼ inch plate thickness. Requires no tools or special adhesives. Designed to grip the surface tightly. Will not jar looss. The polyethylene material is practically impervious to atmospheric gases, ozone, dampness, acids, oils and corrosion. Meets requirements of MIL-C-17D, MIL-W-78B and MIL-C-915A. Sold only in multiples as shown in the chart below. (*) ±.010". Shpg. wt. 8 oz.

Stock	Mfr's	Dimensions* (Inches)		Thickness Range	Ft. Per	Price Per Package			8	
No.	Туре	A	В	C	(Inches)	Pkg.	1-9	10-24	25-99	100- Up
787-4110 787-4105 787-4115 787-4120 787-4125 787-4150	GS2CP GS2ACP GS3CP GS4CP GS5CP GS6CP	.130 .150 .170 .175 .215 .275	.120 .160 .180 .240 .290 .370	.040 .042 .042 .045 .045	.020039 .040062 .062099 .100144 .145187	100 100 100 100 50 50	6.75 7.60 8.10 9.30 12.76 15.02	5.40 6.08 6.48 7.44 10.63 13.44	5.07 5.40 6.20 9.11	3.86 4.34 4.63 5.31 7.98 11.26

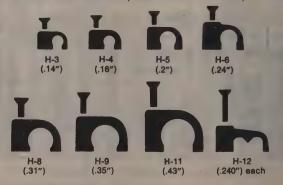
COAXIAL AND TELEPHONE CABLE CLIPS

- Simple Push-Fit Installation
- Nails Fixed in Clips
- 8 Sizes Available

Designed for firm, fast and permanent cable installation. Provide the safest and easiest method of securing coaxial cable. Contour design permits clip to "push-fit" onto cable, prior to the nail being driven into the support, thereby saving time and labor. Contour also insures that cable will not be pinched or crushed, which could damage the shielding and distort the signal. Nail fixed in the clip, will not fall out during shipping or installation. Clips of high-impact, polystyrene. Nail: Cadmium plated, hardened cold rolled steel. Sold in multiples of 100 only.

(†) Dual type. Shpg. wt. per 100: 4 oz.

Actual size illustrations (Inside dimensions in inches)



Stock	Mfr's	Inside Dia. (Inches)	Nall Dia. (Inches)	Nail Lgth.	Price Per 100			
No.	Туре			(Inches)	1-9	10-24	25-Up	
787-4203 787-4204 787-4205 787-4208	H-3 H-4 H-5 H-6	.14 .16 .20 .24	.060 .060 .060 .080	% % %	2.88 2.98 3.28 3.53	2.30 2.38 2.62 2.82	1.92 1.98 2.18 2.35	
787-4208 787-4209 787-4211 787-4212	H-8 H-9 H-11 H-12	.31 .35 .43 .24†	.080 .080 .080 .080	1 1 1	4.60 4.90 5.35 5.45	3.68 3.92 4.28 4.34	3.07 3.27 3.57 3.62	

ESTIMATOR CHART FOR CUT WIRE AND TUBING PIECES

Length Inches	No. of Feet Required per 1,000 pieces	No. of pieces in 1,000-Ft.	Length Inches	No. of Feet Required per 1,000 pieces	No. of pieces in 1,000-Ft.
1/4	20.9	48,000	61/4	520.8	1,900
1/2	41.7	24,000	. 61/2	541.7	1,825
3/4	62.5	16,000	6¾	562.5	1,775
1	83.4	12,000	7 .	583.4	1,700
11/4	104.2	9,600	71/4	604.2	1,650
1 1/2	125.0	8,000	7½	625.0	1,600
1%	145.9	6,900	7%	645.8	1,550
2	166.7	6,000	8	666.7	1,500
21/4	187.5	5,350	81/4	687.5	1,450
21/2	208.4	4,800	81/2	708.4	1,400
2¾	229.2	4,400	8¾	729.2	1,350
3	250.0	4,000	. 9	750.0	1,325
31/4	270.9	3,700	91/4	770.8	1,275
3½	291.7	3,450	91/2	791.7	1,250
3¾	312.5	3,200	9¾	812.5	1,225
4 .	333.4	3,000	10	833.3	1,200
41/4	354.2	2,800	101/4	854.1	1,150
41/2	375.0	2,650	10½	875.0	1,125
4¾	395.9	2,525	10¾	895.9	1,100
5	416.7	2,400	11	916.7	1,075
51/4	437.5	2,275	111/4	937.4	1,050
5½	458.4	2,175	11½	958.3	1,025
5%	479.2	2,075	11¾	979.9	1,000
6	500.0	2,000	12	1,000.	1,000

ALLIED OFFERS A WIDE VARIETY OF CUT WIRE AND TUBING PRODUCTS. CHECK EACH PAGE CAREFULLY TO SELECT THE TYPES AND SIZES TO MEET YOUR SPECIFIC REQUIREMENTS.

SPEED-WRAP TOOLS

TYPE G100/R-3278 SPEED-WRAP TOOL. Designed with a chuck nose piece to make full use of the full line of bits and sleeves made for power tools. Makes fast, perfect, solderless wrapped-wire electrical connections in less than 1/10 second. Uses interchangeable Colitite bits and sleeves (listed below) that accommodate the proper size wire and terminals for any application. 825-2001. 1-3.....Each 58.87 4-Up.....Each 47.00

COLLTITE BITS AND SLEEVES. For use with Speed-Wrap tool above. Sleeves are insulated and minimize shorting of adjacent terminals (use in con-

B COILTITE SLEEVE

Wire	Stock	Mfr's	EACH		
Gauge	No.	Туре	1- 3	4-Up	
#22-24	825-2015	P2224	9.15	7.32	
#24-26	825-2016	P2426	9.15	7.32	
#30-32	825-2017	P3032	14.70	11.74	

	C cc	ILTITE BIT	г	
#26	825-2012	KB26	16.21	14.35
#24	825-2011	KB24	16.21	14.35
#22	825-2010	KB22	16.21	14.35
#22, 24	825-2013	KB224	16.21	14.35

TYPE UW2 HAND UNWRAPPING TOOL. For easy removal of solderless wrapped connections. For left or right hand operation. For #20 to #26 wire. 825-2031. 1-3...... Each 9.08 4-Up...... Each 7.25 UWD93-93 HAND UNWRAPPING TOOL. For #28-32 wire. Left or right hand. 825-2035. 1-3..... Each 13.60 4-Up..... Each 10.88

E TYPE UW1 HAND UNWRAPPING TOOL. As above, regular handle. For #20 to #25 wire. 825-2030. 1-3...... Each 6.13 4-Up..... Each 4.90 E UW093R HAND UNWRAPPING TOOL. Regular handle.

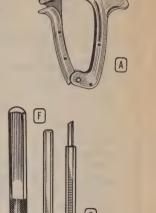
For #28-#32 wire. 825-2040. 1-3......Each 9.18 4-Up..... Each 7.34

F HAND WRAPPING TOOLS. For occasional connections. No bits, sleeves or special skills needed.

TYPE HW224. For #22 and #24 wire 825-2006. 1-3.....Each 19.10 4-4-Up..... Each 15.25

TYPE HW26. For #26 wire. 825-2005. 1-3.....Each 18.17

4-Up..... Each 14.50 TYPE HW30. For #30 wire. 825-2007. 1-3.....Each 24.73 4-Up..... Each 19.75



TYPE 64-2129 WIRE STRIP-PER/CUTTER. Spring-loaded tool strips #12 to #24 wires. Handy tool has easy-grip han-dle. Shpg. wt. ½ lb. 910-5931

TYPE 64-2136 POCKET KNIFE. Has knife, wire scraper and screwdriver. Sharp cutting blade. Non-slip handle. Safety Shpg. wt. 4 oz.



TYPE 64-405 THREE-WAY CRIMPING TOOL. Crimps sol-derless terminals, cuts wire, strips insulation. With asstd. terminals. Wt. 1½ lbs. 910-5903



TYPE 64-1960 WIRE BENDING JIG. Bends eyes, curves, spirals. For dozens of useful jobs. Accepts up to ¼" diam-eter wire. Shpg. wt. ¼ lb. 910-5920

INFRA-RED HEAT GUN



B

D

HOT AIR PENCIL

Controls Airflow. Temperature. Velocity and Direction



MODEL FG-4. For precise selective heating of small diameter tubing and sleeves. Heat may be concentrated exactly where it is required, for labor-saving installation and repair. Allows operator to work in crowded circuit and repair. Anows operator to work in clowded international areas without damaging heat-sensitive components and wire. Uses factory or shop compressed air supply. Stand, regulator, needle point tip and reflectors incl. Airflow, 60 psig, min. 4 cfm. 120 VAC. Shpg. wt. 1 lb.

.....Each 153.64

MINIATURE FIT® GUN

ARCHER WIRE AND CABLE TOOLS

MODEL FG-1. For shrinking dering-sleeves and all FIT tubing. Durable, electric motor driven unit delivers high volume of air to nozzle. Easily replaceable heat elements. Three-position switch. elements. Three-position switch. Lightweight — use as a bench or hand unit. Rated at 7 amps, 115 VAC. Typical temperatures: 175°C (347°F) without adapter; 205°C (401°F) with adapter; 203°C (466°F) with tubing reflector; 340°C (664°F) with fit-sleeve reflector. With all accessories.

708-3770 Each 52.61



ncludes All Accessories

MODEL FG-5. Just press the switch and a burst of infrared energy shrinks tubing in seconds energy shrinks tubing in seconds — safely. Ellipsoidal reflector focuses heat from a quartz iodine lamp onto the tubing. Optical filter cuts eye strain; special reflectors let the operator observe the shrinking process. May be used as hand gun or bench tool. Noiseless; no heat build-up. Interchangeable reflectors. Offers speed, safety, efficiency to servicemen and technicians.

708-3774 Each 255.60



Shrinks Tubing in Seconds

"MITE" FLAMELESS HEAT GUN

TYPE 10008. Only 2 lbs. (with nozzle) and really versatile! TYPE 10008. Only 2 lbs. (with nozzle) and really versatile! Available with three snap-in heat range nozzles: silver (Incl.) provides 650°F for most shrinkables; optional blue nozzle provides 500°F for Mylar®; optional black nozzle provides 800°F for Teflon®. Brushless-type shaded-pole motor rated 3300 rpm. Air cooled barrel and 3-conductor grounded cord for maximum safety. Draws only 5.4 amps of power. Deflector adaptor, silver nozzle, 7-ft. cord incl. 120 VAC. Accessories below.
861-1610. Shpg. wt. 2 lbs...............Each 40.86 861-1615. Type 20012 Nozzle. 500°F. Wt. 8 oz. Each 6.93 861-1620. Type 20014 Nozzle. 800°F. Wt. 8 oz. Each 6.93

HEAT GUN BLOWERS

Choose from two heat gun models that deliver instant heat up to 1000°F without the danger of an open flame. Perfect for use with "shrinkable" tubing, forming plastics, etc. Type HG-501 produces heat from 500 to 750°F. Type HG-751 from 750 to 1000°F. Both with 8-ft. neoprene cord. 115 VAC. Order accessories below. "Shpg. wt. ¼ lb. 861-1604. Type HG-501 Heat Gun. 14 amps. 5 lbs. .49.90 861-1605. Type HG-751 Heat Gun. 20 amps. 5 lbs. .59.95 861-1606. Type 100 Nozzle Adapter. Shpg. wt. ¼ lb. 5.53 861-1607. Type 145 Baffle Plate. Tub. to ¼" dia.* .5.15 861-1608. Type 150 Baffle Plate, Tub. to 1¼" dia.* 5.53



Deliver Instant

Heat without

Open Flame

AIR HEAT BLOWERS

Maintain continuous flow of heated air wherever you need it. For portable use or permanent mounting. Overall dimensions: Type AH-301, 9"; Type AH-501, 12". Both include 8-ft. cord. For 110-120 VAC.

	H Provides Air Wherever Ne
861-1600 AH-301 10 300° 7 56 861-1601 AH-501 14 500° 8½ 59	65 Barmana

FLAME TORCH KIT

TYPE FG-10. Supplies soft yellow flame for shrinking tubing without damaging encapsulated material, wire or cable. Provides a flame of even temperature without the hard blue flame present in ordinary propane units. Kit includes pistol grip torch, valve assembly with control knob for attachment to ordinary propane bottle (not supplied), belt clip and torch holding hook, 6-ft. L.P.G. propane hose, Ideal for the electronic technicians servicing radio transmitters test equipment power supplies transradio transmitters, test equipment, power supplies, trans-formers, many other in-the-field applications. Note should be used only where safety regulations permit



Ideal Propane Torch for In-Field **Applications**

INDEX TO CONNECTORS, PATCH BOARDS AND TELEPHONE PRODUCTS

	1113		. •	OUM
Audio Connectors				
Amphenol				183
Realistic				184
Switchcraft				184
Banana Plugs and Jacks				
Allied				192
E. F. Johnson				192
H. H. Smith				192
Pomona				190
Barrier Block and Strip 1				
Cinch				193
Curtis				174, 175
Binding Posts				
A.C.I				174
Allied				189
H. H. Smith				189
Superior				189
Cable Connectors				
Amphenol				
Cinch				172
Card-Edge Connectors				
Amphenol				
Cinch	• • • • • • • •	• • • • •	****	168, 169
Chassis-Mounting Cinch				171
Coaxial Connectors				1/1
Amphenol		1	76. 18	0 181 182
			10, 10	0, 101,102

E. F. Johnson
Kings181
Enviromate Connectors
Allied162
Electro Oceanic162
Micro-Rack Connectors
Amphenoi
Miniature Connectors
Amphenol
MS Connector Insert Arrangements
MS Connectors, Amphenol
Patch Cords and Boards
ADC179
Pomona
H. H. Smith
Phone Jacks and Plugs
Allied
NTT
Switchcraft184, 185
Phono Plugs and Jacks
Allied186
NTT186
Plugs, Jacks and Sockets
Amphenol
Cinch
Eagle
11. 11. Omidi

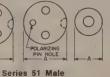
Switchcraft184, 185
RF Connectors, Amphenol181, 182
Rack and Panel Connectors
Amphenol
Ribbon Connectors, Amphenol176
Solderless Terminals, Vaco173
Telephone Products
ADC179
Amphenol
Terminals, Boards, Housing
Keystone188
USECO188
Test Clips
E. F. Johnson191
Mueller191
Pomona191, 193
H. H. Smith191
Test Leads and Prods
H. H. Smith194
Tip Jack and Plugs
Allied
H. H. Smith
Tools
Amphenol
USECO
Vaco

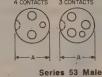
Allied® Environmate® Connectors for **Underwater and Explosion-Proof Applications**



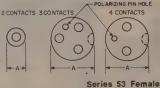












2 CONTACTS

LCONTACT

Series 59 E/F

-17,32-

DESIGNED TO INSURE THE ULTIMATE IN WIPING ACTION

00

Series 51 Female







Cylindrical plug and socket with socket having port opening at back or side. As mating occurs all foreign matter is wiped out to provide a leak proof seal. Has many design features to insure ultimate in wiping action such as the socket diameter is slightly smaller than the plug diameter so that as the plug is inserted the socket expands slightly and all foreign material such as water, salt deposits, dirt and sand is forced out of the socket through the port openings. The plug is also flared at the leading edge and the socket restricted at its entrance to further enhance the wiping action. Cylindrical plug and socket with

SFL SFL	а
Body Material	
MALE CONNECTORS	

*Rated amps per contact.

		No.	No.				EAC	H	
Stock No.	Mfr's Type	Of Cont.	Of Pins	Amps	Dia. (A)	1- 9	10- 49	50- 99	100- Up
521-1821 521-1631 521-1841	51E3M-1	3	1 3 2	7.5 20 7.5	1"		13.46 27.69 30.76		24.20
521-3821 521-3631 521-3841 521-9821	53E3M-1 53F4M-1	3 4	1 3 2 1	7.5 20 7.5 7.5	1"	38.41 44.08	27.69 35.38 37.71 21.53	32.85 35.20	30.66 33.00

FEMALE CONNECTORS

*Rated amps per contact.

		No.	No.				EA	CH	
Stock No.	Mfr's Type	Of Cont.	Of	Amps	Dia. (A)	1-9	10- 49	50- 99	100- Up
521-1822 521-1632 521-1842	51E3F-1	2 3 4	1 3 2	7.5 20 7.5	3/8" 1" 1"	30.06	27.69	12.50 25.71 28.57	24.00
521-3822 521-3632 521-3842 521-9822	53E3F-1 53F4F-1	2 3 4 2	1 3 2 1	7.5 20 7.5 7.5	1"	38.41 44.08	35.38 37.71	25.71 32.85 35.20 20.00	30.66 33.00

MATING CHART

Model	Mates With	Model	Mates With
51F2F-1	51F2M, 53F2M	53E3F-1	53E3M, 51E3M
51E3F-1	51E3M, 53E3M	53F4F-1	53F4M, 51F4M
51F4F-1	51F4M, 53F4M	59F2M-1	51F2F
53F2F-1	53F2M, 51F2M	59F2F-1	51F2M

SPECIFICATIONS

Hi Pot Rating 1000 VAC Minimum
Pressure Rating 20000 PSI
Current Rating See Tables Below
Explosion Resistance Certified By U.S. Bu

FEATURES

- Explosion Proof (Bureau of Mines Approved)
 Patented Designed
 Underwater "Pluggable"
 Dustproof
 Waterproof
 Self-Cleaning
 Self-Locking
 Non-Flammable

APPLICATIONS

Dockside and Marina
 Boats and Boat Trailers
 Construction Equipment
 Underwater Photography
 Airport Lighting
 Cars and Recreational
 Vehicles
 Submerged Instruments
 and Lighting

eau of Mines

Exclusive "Watermate" © construction permits plugging and unplugging underwater. Lead wires and rings are joined in body of connector and moided in place to prevent damage from flexing. Long body provides good strain relief and ease of grip. Flange moided to body provides an area for a captive locking sleeve. Pressure ba ance for low engagement and disengagement forces at high pressure. Neoprene rubber-to-rubber contact provides total sealing integrity. Leakage resistance is greater than 100 megohms when mated to depths up to 100 ft. Many other styles and configurations available. Call us today for assistance. Dummy plugs in stock; to order add "D" to Part No. and Stock No. For open circuits, price is 50% of appropriate column. For shorted circuits, price is 50% plus \$2.00 per short. Connectors listed have 12" lead; others available. A so available are boots, sleeves, probes, penetrators, switches, etc.

ELECTRICAL SPLICING KIT

• Fast • Waterproof • Flexible • Permanent

TYPE E0-1000. With this fie'd splicing kit, permanent, flexible, waterproof splices can be made in wide range of single or multi-conductor electrical cables. Takes half the usual time, even by unskilled person. Contains all the necessary tools, supplies and instructions. Uses no epoxy or other potting compound. Needs no outside heat or power. Superior to taped type in many ways, completed splice is only slightly larger in diameter than cable under repair. Kit contains materials for splices in cables ranging from ½" to ¾".

521-1000 Each 43.42

MS Connector Insert Arrangements

CONNECTORS

CODE OF WIRE SIZES

COAX

IRON

CONSTANTAN

COMPLETE LINE AVAILABLE AT ALLIED, The entire MS product line is stocked as components. Any combination of shell, insert, boot, clamp, etc., can be quickly assembled, packaged and shipped.

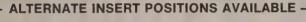
CURRENT RATINGS

CONTACT SIZE 20 16 AMPERES 10 73 135 .. : 245

SERVICE RATINGS

2 3 Max. Operating DC..... 250 700 1250 1750 2450 Sea Level Volts AC (rms) 200 500 900 1250 1750

COM	ECIO	1 SIZE	O.D. 1	OI MEC	LITA	JLL OO	OI LIIV	G 1111112	ADO
Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.
10S 10SL 12S	5/8 5/8 3/4	14S 16S 16	7/8 1 1	18 20 22	1 1/4 1 1/4 1 3/4	24 28 32	1 ½ 1 ¾ 2	36	21/4



W, X, Y or Z W, X or Y

FRONT VIEW

OF POSITIONS

D W, Y or Z C X or Y

ENORMAL

4 Contact

1251-844

(B) (I)

8 2

145-2

F W or Z

G W or Y

5 Contact

145-5

Contact sizes correspond in

number coding to wire sizes.

B W
1 Contact
O 2
• 3 12S-4
18-16

2 Contact

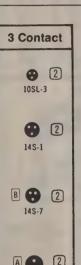
10SL-4

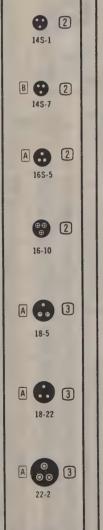
A • 2 145-9

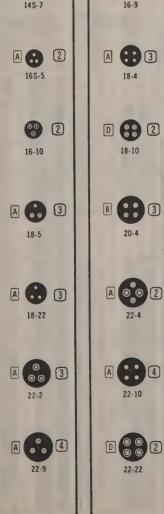
· 3

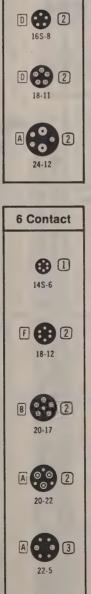
16S-4

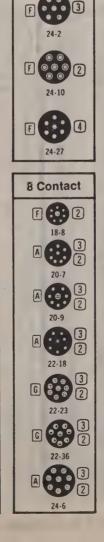
2









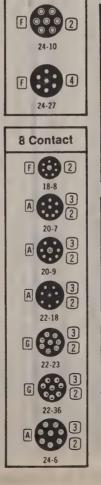


7 Contact

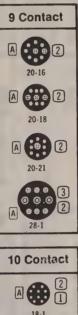
F 谷 2

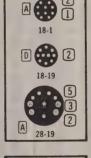
165-1

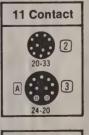
A *** 1

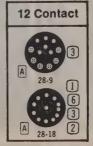




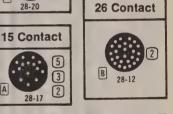


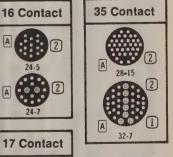


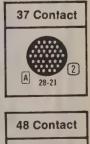












19 Contact

20 Contact



MS Receptacles and Mating Plugs



PLEASE NOTE: the following represents only a partial listing of the entire connector line which Allied maintains in depth. Depend on Allied for all your component needs.

EXPLANATION OF SERIES NUMBERS:

FOR example, 3102A-18-11P — "A" stands for solid shell ("B" split shell), "18" indicates shell size in 16ths of 1", "P" — pin; "S" — socket type. Mates for 3100A, 3101A and 3102A are directly opposite on facing column. Require cable clamp (in this section) except 3102A. Contacts are silver plated and solder cups tinned. Aluminum shells with cadmium plate and O.D. conversion. All meet MIL-C-5015D.

HOW TO ORDER

Select desired receptacle or mating plug on this or next page, then shell style. Paired-off listing shows mating plugs and receptacles on the same line. Specify Stock Number, then add connector Type Number. For example: 506-1001 (Stock No.)—3100A-10S-2P (Type No.).

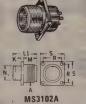
DIMENSIONS TABLE

Con- nector Size	A Coup. Threads	K	L	L ₁ MS 3102A	L ₂	L ₃	L ₄	L ₅	М	N	0	Q	R	S	U	U ₁	Y	X ₁	Y ₁	Fit- ting Th.
10S 10SL 12S 12SL 14S	%-24 %-24 %-20 %-20 %-20	5/64 5/64 5/64 5/64 5/64	1 ⁵ / ₁₆ 1 ⁹ / ₃₂ 1 ¹⁵ / ₃₂ — 1 ⁷ / ₁₆	27/32 27/32 61/64 27/32 15/16	1 ⁵ / ₁₆ 1 ³ / ₈ 1 ⁷ / ₁₆ 1 ³¹ / ₆₄ 1 ⁷ / ₁₆	111/16	1 1/4 1 5/16 1 3/8 1 1 3/64 1 3/8	1 % 1 ½ 1 % 1 % 1 23/32	9/16 9/16 9/16 9/16 — 9/16	% % 25/32 — 7/8	.688 .812 .812 .938	7/8 7/8 1 1 1 1 1/8	23/ ₃₂ 23/ ₃₂ 13/ ₁₆ — 29/ ₃₂	1 1 1 ³ / ₃₂ 1 ³ / ₁₆	7% 1 1 1 1	7/8 1 1 1 1/16 1 1/16	25/32 1 ½16 1 ½16 1 ½16 1 ½16	1/2 21/32	=	½-28 %-24 %-24 ¾-20 ¾-20
16S 16 18 20 22	1 -20 1 -20 1½-18 1¼-18 1¾-18	5/64 1/8 1/8 1/8 1/8	1 ³¹ / ₆₄ 1 ⁵⁷ / ₆₄ 2 2 ¹ / ₈ 2 ¹ / ₈	15/16 1 11/32 1 11/32 1 11/32 1 11/32	1 ²⁹ / ₆₄ 1 ⁵⁷ / ₆₄ 2 2½ 2½ 2½	1 11/16 21/16 21/8 21/8	1½ 1½ 1½ 1½ 1½ 6 1½ 6 2½ 6 2½	13/4 21/8 21/3/32 25/32 21/3/32	9/16 3/4 3/4 3/4 3/4	1 1 1 1/8 1 1/4 1 1/8	1.062 1.062 1.188 1.312 1.438	1 1/4 1 1/4 1 11/32 1 18/32 1 19/32	31/ ₃₂ 31/ ₃₂ 1 1/ ₁₆ 1 ⁵ / ₃₂ 1 1/ ₄	1 %2 1 %2 1 % 1 % 1 ½ 1 %	1 1/2 1 1/3 1 1/3 1 5/16 1 5/16	1 1/8 1 1/8 1 3/16 1 5/16 1 5/16	1 5/16 1 5/16 1 5/16 1 5/16 1 5/18	_	1 ½ 1 ½ 1 ½ 1 ⁴¹ / ₆₄ 1 ¹³ / ₁₆ 1 ¹⁵ / ₁₆	%-20 %-20 1 -20 1 ³ / ₁₆ -18
24 28 32 36	1½-18 1¾-18 2 -18 2¼-16	1/8 1/8 1/8 1/8	21/4 21/4 23/6 23/6	1 11/32 1 11/32 1 7/16 1 7/16	2¼ 2¼ 2% 2%	2 ⁹ / ₃₂ 2 ⁹ / ₃₂ 2 ⁵ / ₁₆ 2 ¹¹ / ₃₂	2 ¹⁵ / ₃₂ 2 ¹⁵ / ₃₂ 2 ¹¹ / ₁₆ 2 ¹¹ / ₁₆	2 % 2 % 2 13/16 2 27/32	13/ ₁₆ 13/ ₁₆ 13/ ₁₆ 7/ ₈	1 ½ 1¾ 2½ 2¼ 2¼	1.562 1.812 2.062 2.312	1 ²³ / ₃₂ 1 ³¹ / ₃₂ 2 ⁷ / ₃₂ 2 ¹⁵ / ₃₂	1 % 1 % 1 % 1 3/4 1 15/16	1¾ 2 2¼ 2½	1 ½ 1 ½ 1 ½ 1 ²⁵ / ₃₂ 1 ²⁵ / ₃₂	1 ⁷ / ₁₆ 1 ⁷ / ₁₆ 1 ³ / ₄ 1 ¹⁵ / ₁₆	2 2 2½ 2½	=	2 ¹ / ₁₆ 2 ⁵ / ₁₆ 2 ⁹ / ₃₂ 2 ²⁷ / ₃₂	17/16-18 17/16-18 13/4-18 2-18

MS3100A



MS3101A











MATING PLUGS









														0 1 04	000
SHELL	MS310	DOA	MS310	1A	MS310		SHELL	Series 3	106A EACH	Series 3	EACH	Series 31 Stock	EACH	Series 31 Stock	EACH
STYLE	Stock	1-24	Stock No.	1-24	Stock No.	1-24	STYLE	Stock No.	1-24	No.	1-24	No.	1-24	No.	1-24
10S-2P	605-1001	4.98	605-2001	4.10	605-3001	1.90	105-28	605-4001	4.43						
10S-2F 10S-2S	605-1002	5.13	605-2002	4.15	605-3002	1.95	10S-2P	605-4002	4.40						
10SL-3P	605-1003	3.20	605-2003	4.73	605-3003	2.45	10SL-3S	605-4003	3.85			605-6003	6.80	506-7001	3.55
10SL-4P	605-1004	3.15	605-2004	4.45	605-3004	2.45	10SL-4S	505-4004	3.70				7.70	506-7002	3.48
12S-4P	605-1005	3.55	605-2005	4.15	605-3005	1.98	125-45	605-4005	3.35			005-6005	7.78	506-7003	4.38
125-45	605-1006	3.55	605-2006	4.15	605-3006	1.98	12S-4P	605-4006	3.35			605-6006 605-6007	7.78 12.35	506-7004	4.38
12SL-844P	605-1007	3.65	605-2007	4.45	605-3007 605-3008	4.43	12SL-844S 14S-1S	605-4007 605-4008	8.20 3.70	605-5001	5.55	605-6008	7.60	605-7005	4.15 4.10
14S-1P 14S-1S	605-1008	3.73	605-2008	4.50	605-3009	4.50	14S-1P	605-4009	3.65	605-5002	4.43	605-6009	7.58	605-7006	4.10
14S-2P	605-1009	3.63	605-2009	4.43	605-3010	2.35	145-25	605-4010	3.93	605-5003	4.63	605-6010	7.75	605-7007	4.38
14S-2S	605-1010	3.93	605-2010	4.68	605-3011	2.58	14S-2P	605-4011	3.63	605-5004	4.40	605-6011	7.52	605-7008	4.08
14S-5P	605-1011	4.03	605-2011	4.85	605-3012	2.65	148-58	605-4012	4.15	605-5005	4.93 4.73	605-6012 605-6013	8.08 7.90	605-7009 605-7010	4.58
14S-5S 14S-6P	605-1012 605-1013	4.15	605-2012 605-2013	4.95	605-3013 605-3014	2.90	14S-5P 14S-6S	605-4013 605-4014	4.00	605-5006 605-5007	4.98	605-6014	8.15	605-7011	4.68
14S-6S	605-1014	4.23	605-2014	5.10	605-3015	2.95	14S-6P	605-4015	4.15	605-5008	4.93	605-6015	8.08	605-7012	4.58
14S-7P	605-1015	3.65	605-2015	4.45	605-3016	2.38	14S-7S	805-4016	3.70	605-5009	4.45	805-6016	7.60	605-7013	4.15
145-75	605-1016	3.70	605-2016	4.50	605-3017	2.45	14S-7P	605-4017	3.65	605-5010	4.43	605-6017	7.58	605-7014	4.10
14S-9P	605-1017	3.48	605-2017	4.23	605-3018	2.18	148-98	605-4018	3.48	605-5011	4.23	605-6018	7.40 7.38	605-7015 605-7016	4.00
14S-9S 16-9P	605-1018 605-1019	3.50 5.15	605-2018 605-2019	5.48 5.25	605-3019 605-3020	2.23	14S-9P 16-9S	605-4019 605-4020	3.45 5.50	605-5012	4.18	605-6019 605-6020	10.00	605-7017	6.65
16-95	605-1019	5.68	605-2019	5.93	605-3021	3.85	16-9P	605-4021	4.88		1.	605-6021	9.38	605-7018	6.05
16-10P	605-1021	4.95	605-2021	5.15	605-3022	2.95	16-108	605-4022	4.62	,		605-6022	9.78	605-7019	6.43
16-10S	605-1022	5.55	605-2022	5.65	605-3023	3.53	16-10P	605-4023	4.68			605-6023	9.25	605-7020	5.93
16-11P	605-1023	4.63	605-2023	4.83	605-3024	2.68	16-118	605-4024	4.95			605-6024	9.55	605-7021 605-7022	6.10
16-115	605-1024	5.20	605-2024	5.38	605-3025	3.23	16-11P	605-4025	4.40	005 5040	F. 70	605-6025	8.86		5.48
16S-1P	605-1025 605-1026	4.63 5.13	605-2025 605-2026	4.98 5.50	605-3026 605-3027	2.92	16S-1S 16S-1P	605-4026 605-4027	4.63 4.15	605-5013 605-5014	5.70 5.33	605-6026 605-6027	10.15 9.68	505-7023 505-7024	4.95
16S-1S 16S-4P	605-1027	4.10	605-2027	4.45	605-3028	2.38	16S-4S	605-4028	3.85	605-5015	4.95	605-6028	9.33	605-7025	4.58
165-45	605-1028	4.23	605-2028	4.63	605-3029	2.53	16S-4P	505-4029	3.63	605-5016	4.85	805-8029	9.18	505-7026	4.43
16S-5P	605-1029	4.40	605-2029	4.73	605-3030	2.68	16S-5S	605-4030	4.78	605-5017	5.18	605-6030	9.58	605-7027	
168-58	605-1030	4.45	506-2030	4.90	605-3031	2.80	16S-5P	605-4031	3.93	605-5018	5.13	605-6031	9.43	605-7028	4.68
16S-8P 16S-8S	605-1031	4.50	506-2031 506-2032	4.93 5.13	605-3032 605-3033	2.88	16S-8S 16S-8P	605-4032 605-4033	4.18	605-5019 605-5020	5.38 5.20	605-6032 605-6033	9.73 9.60	605-7029 605-7030	4.30
18-1P	605-1032	5.68	506-2032	6.43	605-3034	3.98	18-15	605-4034	7.48	605-5021	7.08	605-6034	11.60	605-7031	4.90 7.33
18-1S	605-1034	6.25	506-2034	6.95	605-3035	4.43	18-1P	605-4035	5.50	605-5022	6.58	605-6035	11.10	605-7032	6.80
18-3P	605-1035	4.58	605-2035	5.25	605-3036	2.80	18-3\$	605-4036	5.38	605-5023	6.43	605-6036	11.05	605-7033	6.68
18-35	605-1036	5.63	605-2036	6.38	605-3037	3.88	18-3P	605-4037	4.38	605-5024	5.38 5.70	605-6037 605-6038	9.98	605-7034 605-7035	5.63
18-4P 18-4S	605-1037	4.63	605-2037 605-2038	5.33 5.65	605-3038 605-3039	2.88 3.20	18-4S 18-4P	605-4038 605-4039	4.73	605-5025 605-5026	5.48	605-6039	10.43	605-7036	5.65
18-5P	605-1039	4.43	605-2039	5.13	605-3040	2.58	18-58	605-4040	4.73	605-5027	5.70	605-6040	10.43	605-7037	6.08
18-5S 35	605-1040	4.98	605-2040	5.65	605-3041	3.18	18-5P	605-4041	4.15	605-5028	5.20	805-6041	9.78	605-7038	5.50 7.18
18-8P	605-1041	5.68	605-2041	6.43	605-3042	3.98	18-8\$	605-4042	5.90	605-5029	6.83	605-6042	11.55	605-7039	7.18
18-85	605-1042	6.10	605-2042	6.78	605-3043	4.38	18-8P	605-4043	5.50 5.58	605-5030 805-5031	6.58 6.65	605-6043	11.10 11.23	605-7040 605-7041	6.88
18-9P 18-9S	605-1043 605-1044	5.48 5.90	605-2043 605-2044	6.10	605-3044 605-3045	3.63 4.05	18-9S 18-9P	605-4044	5.18	605-5032	6.25	805-6044 805-6045	10.80	605-7042	6.50
18-10P	605-1045	5.55	605-2045	6.23	605-3046	3.70	18-10S	605-4046	5.90	605-5033	6.95	605-6046	11.55	605-7043	7.18
18-10S	605-1046	6.10	605-2046	6.78	605-3047	4.38	18-10P	605-4047	4.62	605-5034	6.38	605-6047	10.90	605-7044	6.60
18-11P	605-1047	5.55	605-2047	6.23	605-3048	3.70	18-11S	605-4048	5.50	605-5035	6.58	605-6048	11.10	605-7045	6.00
18-11S 18-12P	605-1048 605-1049	5.68 5.18	605-2048 605-2049	6.43 5.90	605-3049 605-3050	3.98 3.35	18-11P 18-12S	605-4049 605-4050	4.62 4.62	605-5036 605-5037	6.38	605-6049 605-6050	10.90	605-7046 605-7047	6.60
18-12F	605-1049	5.55	605-2049	6.23	605-3051	3.70	18-12P	605-4051	4.02	605-5037	6.00	605-6051	10.53	605-7048	6.25
18-16P	605-1051	4.98	605-2051	5.65	605-3052	3.18	18-16S	605-4052	5.58	505-5039	6.65	605-6052	11.23	605-7049	6.95
18-16S	605-1052	5.90	605-2052	6.55	605-3053	4.08	18-16P	605-4053	4.73	605-5040	5.70	605-6053	10.43	605-7050	6.95
18-19P	605-1053	7.75	605-2053	8.48	605-3054	6.00	18-198	605-4054	6.08	605-5041	7.15	550-6054	11.75	605-7051	7.40
18-198	605-1054	6.38	605-2054	7.05	605-3055	4.50	18-19P	605-4055	7.53	805-5042	8.58	605-6055	13.13	605-7052	8.B3

10

MS Receptacles and Mating Plugs

DISCOUNT SCHEDULE FOR MS CONNECTORS

 On Items Under \$12.00
 25-49
 Less 20%
 50-99
 Less 40%
 100-Up
 Less 58%

 On Items \$12.00 and Over
 25-49
 Less 20%
 50-99
 Less 30%
 100-Up
 Less 37%

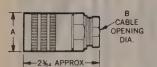
ECEPTACLES (Continued) MATING PLUGS (Continued

		RECEP	TACLES (Continu	ed)					MATING	PLUGS	(Continue	d)		
SHELL	M S3100 Stock	EACH	MS310 Stock	EACH	MS310 Stock	EACH 1-24	SHELL	Series 3 Stock No.	106A EACH 1-24	Series 3' Stock No.	106B EACH 1-24	Series 31 Stock No.	08A EACH 1-24	Series 3 Stock No.	108B EACH 1-24
20-4P 20-4S	No. 605-1055 605-1056	1-24 5.70 6.60	No. 605-2055 605-2056	1-24 6.18 7.03	No. 605-3056 605-3057	3.65 4.45	20-4S 20-4P	605-4056 605-4057	7.18 6.40	605-5043 605-5044	8.05 7.18	805-6056 605-8057	13.00 12.18	605-7053 605-7054	8.40 7.58
20-7P 20-7S	605-1057 605-1058	5.70 6.30	605-2057 605-2058 605-2059	6.18 6.65	605-3058 605-3059 605-3060	3.65 4.15	20-7S 20-7P 20-9S	605-4058 605-4059 605-4060	6.85 6.40 6.95	605-5045 605-5046 605-5047	7.68 7.18 12.73	605-6058 605-6059 605-6060	12.70 12.18 12.73	605-7055 605-7056 605-7057	8.08 7.58 8.13
20-9P 20-9S 20-15P	605-1059 605-1060 605-1061	6.25 6.38 6.40	805-2050 805-2061	6.60 6.68 6.73	605-3061 605-3062	4.10 4.17 4.23	29-9P 20-15S	605-4051 605-4062	6.80 9.28	605-5048 605-5049	7.60 10.08	605-6061 605-6062	12.65 15.10	505-7058 605-7059	8.05 10.48
20-15S 20-16P	605-1062 605-1063	8.65 6.43	505-2062 505-2063	9.08 6.78	605-3063 605-3064	6.58 4.38	20-15P 20-16S	605-4063 605-4064 605-4065	7.03 7.48 7.08	605-5050 605-5051 605-5052	7.75 8.28 7.78	605-6063 605-6064 605-6065	12.75 13.25 12.85	605-7060 605-7061 605-7062	8.15 8.63 8.20
20-16S 20-17P 20-17S	605-1064 605-1065 605-1066	6.85 6.38 7.70	605-2064 605-2065 605-2066	7.20 6.68 8.13	605-3065 605-3066 605-3067	4.73 4.17 5.58	20-16P 20-17S 20-17P	605-4066 605-4067	8.30 6.95	605-5053 605-5054	9.15 7.70	605-6066 605-6067	14.10 12.73	605-7063 605-7064	9.55 8.13
20-18P 20-18S	605-1067 605-1068	6.68 7.40	605-2067 605-2068	7.13 7.75	605-3068 605-3069	4.58 5.25	20-18S 20-18P	605-4068 605-4069	8.05 7.30	605-5055 605-5056	8.80 8.13	605-6068 605-6069	13.78 13.10	605-7065 605-7065 605-7067	9.08 8.48 8.30
20-21P 20-21S 20-22P	605-1069 605-1070 605-1071	6.25 6.58 7.38	605-2069 605-2070 605-2071	6.60 6.95 7.70	605-3070 605-3071 605-3072	4.10 4.43 5.20	20-21S 20-21P 20-22S	605-4070 605-4071 605-4072	7.15 6.80 9.28	605-5057 605-5058 605-5059	7.93 7.60 9.83	605-6070 605-6071 605-6072	12.95 12.65 15.10	605-7068 605-7069	8.05 10.48
20-22S 20-23P	605-1072 605-1073	8.65 6.18	605-2072 605-2073	9.08 6.55	605-3073 605-3074	6.58 4.08	20-22P 20-23S	605-4073 605-4074	7.90 7.38	605-5060 605-5061 605-5062	8.70 13.13 7.58	605-6073 605-6074 605-6075	13.75 13.13 12.58	605-7070 605-7071 605-7072	9.15 8.53 7.93
20-23S 20-27P 20-27S	605-1074 605-1075 605-1076	6.73 6.60 7.20	605-2074 605-2075 605-2076	7.15 7.03 7.58	605-3075 605-3076 605-3077	4.63 4.45 5.13	20-23P 20-27S 20-27P	605-4075 605-4076 605-4077	6.73 7.78 7.18	605-5063 605-5064	8.63 8.05	605-6076 605-6077	13.68 13.00	605-7073 605-7074	9.00
20-27S 20-29P 20-29S	605-1077 605-1078	7.15 7.93	605-2077 605-2078	7.26 8.30	605-3078 605-3079	4.96 5.70	20-29S 20-29P 20-33S	605-4078 605-4079 605-4080	8.53 7.70 7.90	605-5065 605-5066 605-5067	9.33 8.53 8.65	605-6078 605-6079 605-6080	14.33 13.58 13.70	605-7075 605-7076 605-7077	9.68 8.88 9.08
20-33P 20-33S 22-2P	605-1079 605-1080 605-1081	7.13 7.30 7.03	605-2079 605-2080 605-2081	7.48 7.68 7.30	605-3080 605-3081 605-3082	4.95 5.18 4.45	20-33P 22-2S	605-4081 605-4082	7.68 8.53	605-5068 605-5069	8.48 9.58	605-6081 605-6082	13.50 14.90	605-7078 605-7079	8.83 10.00
22-2S 22-4P	605-1082 605-1083	8.53 7.20	605-2082 605-2083	8.83 7.55 8.53	605-3083 605-3084 605-3085	6.05 4.73 5.65	22-2P 22-4S 22-4P	605-4083 605-4084 605-4085	7.03 8.20 7.20	605-5070 605-5071 605-5072	8.05 9.25 8.28	605-6083 605-6084 605-6085	13.38 14.58 13.68	605-7080 605-7081 605-7082	8.48 9.68 8.70
22-4S 22-5P 22-5S	605-1085 605-1085	8.20 6.73 6.80	605-2084 605-2085 605-2086	7.13 7.15	605-3086 605-3087	4.23 4.38	22-5S 22-5P	605-4086 605-4087	6.80 6.75	605-5073 605-5074	7.78 7.75	805-6086 605-6087	13.23 13.13	605-7083 605-7084	8.30 8.28
22-9P 22-9S	605-1087 605-1088	6.00 7.58	605-2087 605-2088	6.48 7.93	605-3088 605-3089	3.47 5.15	22-9S 22-9P	605-4088 605-4089	7.60 6.00	605-5075 605-5078	8.63 7.05	605-6088 605-6089	14.03 12.35	605-7085 805-7086	9.15 7.48
22-10P 22-10S 22-14P	605-1089 605-1090 605-1091	6.00 6.25 8.08	605-2089 605-2090 605-2091	6.48 6.58 8.30	605-3090 605-3091 605-3092	3.45 3.70 5.50	22-10S 22-10P 22-14S	605-4090 605-4091 605-4092	6.25 6.00 9.18	605-5077 605-5078 605-5079	7.20 7.05 10.15	605-6090 605-6091 605-6092	12.65 12.35 15.60	605-7087 605-7088 605-7089	7.70 7.48
22-14S 22-18P	605-1092 605-1093	9.18 6.65	605-2092 805-2093	9.55 7.03	605-3093 605-3094	6.65 4.15	22-14P 22-18S	605-4093 605-4094	8.05 6.75	605-5080 605-5081	9.00 7.75	605-6093 605-6094	14.40 13.13	605-7090 605-7091	9.55 8.28
22-18S 22-19P 22-19S	605-1095 605-1095 605-1096	6.73 7.88 8.08	605-2094 605-2095 605-2096	7.13 8.20 8.30	605-3095 605-3096 605-3097	4.23 5.38 5.50	22-18P 22-19S 22-19P	605-4095 605-4096 605-4097	6.65 8.05 7.90	605-5082 605-5083 605-5084	7.68 11.18 8.88	605-6095 605-6096 605-6097	13.08 14.40 14.25	605-7092 605-7093 605-7094	9.55 9.38
22-195 22-22P 22-22S	605-1097 605-1098	8.10 10.13	605-2097 605-2098	8.40 10.48	605-3098 605-3099	5.55 7.58	22-22S 22-22P	605-4098 605-4099	10.13 8.08	605-5085 605-5086	11.10 9.08	605-6098 605-6099	16.55 14.50	605-7095 605-7096	11.60 9.58
22-23P 22-23S 22-36P	605-1099 605-1100 605-1101	7.70 9.85 34.90	605-2099 605-2100 605-2101	8.10 10.28 35.20	605-3100 605-3101 605-3102	5.20 7.40 32.40	22-23S 22-23P 22-36S	605-4100 605-4101 605-4102	9.93 7.70 38.18	605-5087 605-5088 605-5089	10.90 8.68 39.23	605-6100 605-6101 605-6102	16.28 14.10 44.58	605-7097 505-7098 505-7099	11.48 9.25 39.65
22-36S 24-2P	605-1102 605-1103	38.18 8.13	605-2102 605-2103	38.53 8.15	605-3103 605-3104	35.70 5.18	22-36P 22-2S	605-4103 605-4104	34.90 9.98	605-5090 605-5091	35.95 11.78	605-6103 605-6104	41.28 16.80	605-7100 605-7101	36.38
24-2S 24-5P 24-5S	605-1104 605-1105 605-1106	9.75 9.00 10.13	605-2104 605-2105 605-2106	9.78 9.08 10.15	605-3105 605-3106 605-3107	6.85 6.08 7.18	24-2P 24-5S 24-5P	605-4105 605-4106 605-4107	8.28 10.33 9.18	605-5092 605-5093 605-5094	10.08 12.10 11.00	605-6105 605-6106 605-6107	15.15 17.15 16.03	605-7102 605-7103 605-7104	9.18 11.20 10.08
24-6P 24-6S	605-1107 605-1106	8.43 11.00	605-2107 605-2108	8.48 11.05	605-3108 605-3109	5.50 8.08	24-6S 24-6P	605-4108 605-4109	11.10 8.58	605-5095 605-5096	12.95 10.43	605-6108 605-6109	18.05 15.50 17.15	605-7105 605-7106 605-7107	12.03 9.80 11.20
24-7P 24-7S 24-10P	605-1109 605-1110 605-1111	9.38 10.13 11.75	605-2109 605-2110 605-2111	9.43 10.15 11.78	605-3110 605-3111 605-3112	6.43 7.18 8.80	24-7S 24-7P 24-10S	605-4110 605-4111 605-4112	10.30 9.58 13.63	605-5097 605-5098 605-5099	12.10 11.35 15.33	605-6110 605-6111 605-6112	16.40	605-7108	10.48
24-10S 24-12P	605-1112 605-1113	13.48 10.48	605-2112 605-2113	13.50 10.50	605-3113 605-3114 605-3115	11.05 7.53 9.60	24-10P 24-12S 24-12P	605-4113 605-4114 605-4115	11.85 12.70 10.63	605-5100 605-5101 605-5102	13.70 14.53 12.48	605-6113 605-6114 605-6115	18.78 19.58 17.48	605-7110 605-7111 605-7112	12.75 13.63 11.55
24-12S 24-20P 24-20S	605-1114 605-1115 605-1116	8.40 8.48	605-2114 605-2115 605-2116	12.55 8.43 8.50	605-3116 605-3117	5.48 5.55	24-20S 24-20P	605-4116 605-4117	8.63 8.53	605-5103 605-5104	10.48 10.35	605-6116 605-6117	15.55 15.38	605-7113 605-7114	9.58 9.43
24-27P 24-27S	605-1117 605-1118	7.18 7.40	605-2117 605-2118	7.20 7.48	605-3118 605-3119	4.23 4.45	24-27S 24-27P	605-4118 605-4119	7.55 7.38	605-5105 605-5106 605-5107	9.38 9.20 13.10	605-6118 605-6119 605-6120	14.50 14.20 18.18	605-7115 605-7116 605-7117	8.48 8.28
24-28P 24-28S 28-1P	605-1119 605-1120 605-1121	9.78 11.10 10.33	605-2119 605-2120 605-2121	9.93 11.20 11.33	605-3120 605-3121 605-3122	6.95 8.20 7.55	24-28S 24-28P 28-1S	605-4120 605-4121 605-4122	11.28 10.00 13.60	605-5108 605-5109	11.75	605-6121 605-6122	16.93 20.40	605-7118 605-7119	10.90
28-1S 28-2P	605-1122 605-1123	9.23 9.78	605-2122 605-2123 605-2124 605-2125	14.18 10.28 10.85	605-3123 605-3124 605-3125	10.48 6.43 7.13	28-1P 28-2S 28-2P	605-4123 605-4124 605-4125	10.73 10.28 9.63	605-5110 605-5111 605-5112	11.63 11.20 10.53	605-6123 605-6124 605-6125	17.53 17.08 16.40	605-7120 605-7121 605-7122	11.78 11.28 10.68
28-2S 28-9P 28-9S	605-1124 605-1125 605-1126	9.73 10.68	605-2125 605-2126	10.75 11.63	605-3126 605-3127	7.03 7.90	28-9S 28-9P	605-4125 605-4126 605-4127	11.05 10.13	605-5113 605-5114	12.00 11.08	605-6126 605-6127	17.88 16.96	605-7123 605-7124	12.10 11.20
28-11P 28-11S 28-12P	605-1127 605-1128 605-1129	10.48 12.70 10.85	605-2127 605-2128 605-2129	11.48 13.70 11.85	605-3128 605-3129 605-3130	7.68 9.93 8.10	28-11S 28-11P 28-12S	605-4128 605-4129 605-4130	13.08 10.80 13.08	605-5115 605-5116 605-5117	14.03 11.78 14.03	605-6128 605-6129 605-6130	19.90 17.68 19.90	605-7125 605-7126 605-7127	14.10 11.85 14.10
28-12S 28-15P	605-1130	13.10	605-2130 605-2131	13.70	605-3131 605-3132	7.68 9.43 11.28	28-12P 28-15S	605-4131	11.23	605-5118	12.18	605-6131 605-6132	18.10	605-7128 605-7129	12.33
28-15S 28-16P 28-16S	605-1132 605-1133 605-1134	14.05 10.78 10.85	605-2132 605-2133 605-2134	15.10 11.78 11.85	605-3133 605-3134 605-3135	11.28 8.05 8.13	28-15P 28-16S 28-26P	605-4132 605-4133 605-4134 605-4135	12.58 11.23 11.10	605-5120 605-5121 605-5122	13.58 12.18 12.10	605-6133 605-6134 605-6135	19.35 18.10 17.93	605-7130 605-7131 605-7132	12.93 12.33 12.18
28-17P 28-17S	605-1135 605-1136	9.15 9.73	605-2135 605-2136	10.13 10.75	605-3136 605-3137	6.38 7.03	28-17S 28-17P	605-4136 605-4137	10.13	605-5123 605-5124	11.08	605-6136 605-6137	16.95 16.28	605-7133 605-7134	11.20 10.48 11.08
28-18P 28-18S 28-19P	605-1137 605-1138 605-1139	8.38 9.63 8.93	605-2137 605-2138 605-2139	9.80 10.68 9.98	605-3138 605-3139 605-3140	6.05 6.85 6.18	28-18S 28-18P 28-19S	605-4138 605-4139 605-4140	10.00 9.23 11.23	605-5125 605-5126 605-5127	11.00 10.15	605-6138 605-6139 605-6140	16.80 16.03	605-7135 605-7136 605-7137	10.33
28-19S 28-20P	605-1140 605-1141	10.85 10.78	605-2140 605-2141	11.85 11.58	605-3141 605-3142	8.13 7.75	28-19P 28-20S 28-20P	605-4141 605-4142 605-4143	9.33 12.10 10.88	605-5128 605-5129 605-5130	10.33 13.08 11.85	605-6141 605-6142 605-6143	16.18 18.93 17.75	605-7138 605-7139 605-7140	10.43 13.13 12.00
28-20S 28-21P 28-21S	605-1142 605-1143 605-1144	11.73 12.55 14.23	605-2142 605-2143 605-2144	12.73 13.63 15.25	605-3143 605-3144 605-3145	8.93 9.75 11.05	28-21S 28-21P	605-4144 605-4145	14.70 12.95	605-5131 605-5132	15.73 13.85	605-6144 605-6145	21.43 19.78	605-7141 605-7142	15.70
32-7P 32-7S	605-1145 605-1146	13.30 16.93	605-2144 605-2145 605-2146	14.18 17.88	605-3146 605-3147	10.30 13.85	32-7S 32-7P	605-4146 605-4147	19.20 15.60	605-5133 605-5134	19.28 15.68	605-6146 605-6147	27.23 23.55 29.95	605-7143 605-7144 605-7145	20.10 16.43
36-10P 36-10S	605-1147	18.10	605-2147 605-2148	14.95 16.20	605-3148 605-3149	13.58 14.95	32-10S 36-10P	605-4148 605-4149	21.33 19.88	605-5135 605-5136	21.68	605-6148 605-6149	28.53	605-7146	17.20
All MS Conne	ctors except the 3	102 Series	require clamp.	See next p	age.										

Miniature Connectors and Accessories

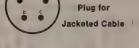
SERIES 165 MS-TYPE MINIATURE CONNECTORS







RECEPTACLE





9 #20 Contacts Receptacle



12 #20 Contacts



24 #20 Contacts
Square Flange
Receptacls

- About ½ the Size and Weight of Standard MS Connectors
- Bayonet Coupling for Quick Disconnect

5 #20 Contacts

• Cable Clamp Provides Strain Relief

Pressure-proof and completely weather-proof miniature connectors. Widely used in instrumentation and miniaturized electronic equipment. These highly reliable connectors are available in both small and large shell sizes providing enough variation for a wide range of applications. Contacts are gold over silver plating. Aluminum shells feature quick bayonet coupling. Small receptacles mount in 1% holes secure through four 1% holes on 2% centers. Large receptacles require 1% hole with four 1% holes on 1% centers. Plugs are 2% long. Small plugs are 1% 10 nog. Small plugs are 3% 10 nog. Small plugs are 3% 10 nog. Small plugs are 5% 10 nog. Small plugs are 1% 10 nog. Small plugs are 5% 10 nog. Small plugs are 5% 10 nog. Small plugs are 5% 10 nog. Small plugs are 1% 10 nog. Small plugs are 1% 10 nog. Small plugs are 100 nog. Small plu

DIMENSIONS (Inches)

	A	В	С	D	E
Small	57/64	3/8	1 ¹ / ₁₆	25/32	25/64
Large	19/64	21/32	1 ⁵ / ₁₆	31/32	31/64

SMALL SHELL-5 No. 20 CONTACTS

		Contacts .			EACH	
Stock No.	Type No.	and Ampere Rating	Description	9	10- 49	50- Up
713-5570 713-5573 713-5576 713-5579	165-33 165-34 165-35 165-36	*5 @ 7.5 *5 @ 7.5 *5 @ 7.5 *5 @ 7.5	Male Plug Female Plug Male Recept. Female Recept.	6.67 9.15 4.77 5.77	4.51 6.12 3.19 3.87	3.55 4.87 2.55 3.07

SMALL SHELL-9 No. 20 CONTACTS

713-5529 165-14 9@7.5 Female Plug 10.77 7.21 5.73 713-5532 165-15 9@7.5 Male Recept. 5.20 3.48 2.76 713-5535 165-16 9@7.5 Female Recept. 6.65 4.44 3.54

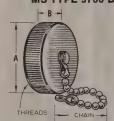
SMALL SHELL-12 No. 20 CONTACTS

	713-5516 713-5518 713-5520 713-5523	165-9 165-10 165-11	12 @ 7.5 12 @ 7.5 12 @ 7.5	Male Plug Female Plug Male Recept. Female Recent	7.37 11.00 5.55 9.10	4.94 7.36 3.72 6.09	3.94 5.85 2.95 4.84
--	--	---------------------------	----------------------------------	---	-------------------------------	------------------------------	------------------------------

LARGE SHELL-24 No. 20 CONTACTS

	-	OL OIILLE	21 1101 20 001			
713-5550 713-5553 713-5556 713-5559	165-25 165-26 165-27 165-28	24 @ 7.5 24 @ 7.5 24 @ 7.5 24 @ 7.5	Male Plug Female Plug Male Recept. Female Recept.	12.15 15.95 8.40 11.60	8.46 11.12 5.83 7.76	6.73 8.84 4.66 6.17

MS TYPE 9760 DUST CAPS FOR RECEPTACLES



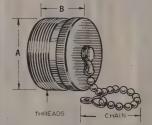
Ε

Soft Rubber Disc Seats on Shell Forming Watertight Joint

Provide protection against live circuits and keep out dirt and dust when connector is not in use. Have internal threads especially designed for use with Series MS3100A, MS3101A and MS3102A receptacles. Beaded chain. A soft rubber disc seats on the connector shell forming a watertight joint. Cadmium olive drab finish. Av. shpg. wt. 2 oz.

Stock	MS	Fits	Dimensions—		EACH			
No.	Type	Shell	In	ches		1-	10-	50-
140.	·ype	Siteri	Threads	A	В	9	49	Up
712-2538A	9760-10	10S, 10SL	5/8-24	13/16	7/16	.97	.59	.49
712-2540A	9760-12	12, 12S, 12SL	³ ⁄ ₄ − 20	15/16	7/16	1.10	.67	.55
712-2542A	9760-14	14. 14S	<i>⅓</i> −20	11/16	7/16	1.20	.71	.59
712-2544A	9760-16.	16, 16S 5	1-20	11/8	7/16	1.30	.79	.66
712-2546A	9760-18	18	11/8-18	15/16	7/16	1.55	.93	.78
712-2548A	9760-20	20	11/4 18	17/16	7/16	1.70	1.03	.84
712-2550A	9760-22	22	13/8-18	19/16	7/16	1.95	1.17	.96
712-2552A	9760-24	24	11/2 18	111/16	7/16	2.28	1.35	1.13
712-2554A	9760-28	28	$1\frac{3}{4} - 18$	159/64	3/2	2.70	1.63	1.35
712-2556A	9760-32	32 1 7 7	2-18	23/16	1/2	3.15	1.89	1.57
712-2558A	9760-36	36	21/4-16	27/16	1/2	3.47	2.10	1.74

MS TYPE 9760 DUST CAPS FOR PLUGS



For Use on All Plugs Where a Coupling Ring is Provided

Male caps and chains especially designed for Series MS3106 and MS3108 plugs. Have external threads and are used on all plugs where a coupling ring is provided. Provide excellent protection against live circuits in a wide variety of applications. Beaded chain. Have cadmium olive drab finish. Av. shpg. wt. 2 oz.

Stock	MS	Fits		nsions-		EACH		
No.	Type	Shell	In	ches		1-	10-	50-
140.	Турс	Ollell	Threads	A	В	9	49	Up
712-2539	9760-10P	10S, 10SL	5/8-24	5/8	21/32	1.48	.90	.75
712-2541	9760-12P	12, 12S, 12SL	3/4 - 20	3/4 7/8	27/32	1.65	.98	.82
712-2543	9760-14P	14, 148	√ ₈ − 20	7/8	27/32	1.88	1.13	.94
712-2545	9760-16P	16, 16S	1-20	1	27/32	2.12	1.29	1.07
712-2547	9760-18P	18	11/8-18	11/8	27/32	2.18	1.32	1.10
712-2549	9760-20P	20	11/4 18	11/4	27/32	2.27	1.35	1.13
712-2551	9760-22P	22	13/8 18	13/8	27/32	2.83	1.70	1.41
712-2553	9760-24P	24	1½-18	11/2	27/32	3.38	2.03	1.70
712-2555	9760-28P	28	13/4 18	13/4	27/32	3.58	2.14	2.78
712-2557	9760-32P	32	2-18	2	27/32	5.25	3.13	2.61
712-2559	9760-36P	36	$2\frac{1}{4} - 16$	23/4	27/32	5.40	3.24	2.71

CABLE CLAMPS





SERIES 3057. For jacketed cable or wires protected by tubing. Supports at plug or receptacle. Use with rubber bushing for firm grlp. *Stepdown. Wt. 3½ oz.

	MS		EACH			
Stock	Type	Fits	1-9	10-	50-	100-
No.	3057	Shell		49	99	Up
712-2500A 712-2501A 712-2503A 712-2505A	3057-3 3057-4 3057-6 3057-8	8S, 10S 12, 12S 14, 14S 16, 16S	1.12 1.03 1.03 1.10	.63 .57 .57 .61	.55 .51 .51	.50 .45 .45 .49
712-2507A	3057-10	18	1.10	.62	.54	.51
712-2533A	97-3057-10-6*	18	1.92	1.17	.97	.77
712-2509A	3057-12	20, 22	1.30	.76	.68	.58
712-2534A	97-3057-12-6*	20, 22	2.05	1.22	1.03	.82
712-2511A	3057-16	24, 28	1.53	.92	.82	.67
712-2513A	3057-20	32	2.08	1.22	1.03	.93
712-2515A	3057-24	36	3.10	1.69	1.38	1.24
712-2517A	3057-28	40	4.33	2.15	1.89	1.73

AN3420 TELESCOPING BOOTS



Rubber bushing designed for MS3057A cable clamp. Protects wire bundles and unjacketed cables from possible damage by cable clamp. Telescope for use with cable too small in relation to connector used. Shpg. wt. 1½ oz.

				EACH				
Stock No.	Type No.	Cable 0.D.	1-9	10- 49	50- 99	100- Up		
	712-2579 712-2580	9779-513-3 9779-513-4	0.130	.20	.12	.09	.08	
	712-2581 712-2582	9779-513-6 9779-513-8	0.312	.23	.13	.10	.09	
	712-2583	9779-513-8	0.437	.23	.13	.10	.09	
	712-2584 712-2585	9779-513-12 9779-513-16	0.625	.30	.16	.13	.12	
	712-2585	9779-513-20	0.937	.53	.28	.23	.21	

MS3057A CABLE CLAMP AND BOOT



Strong, lightweight. Both clamping halves float so that cable is always centered for maximum strain relief. AN3420 boot provides support and weatherproofing. Extra boots may be used for small cables. Shpg. wt. 5 oz.

			EACH			
Stock	MS	Fits	1-	10-	50-	100-
No.	Type	Shell	9	49	99	Up
712-2502	3057-4A	10SL, 12, 12	1.30	.81	.72	.58
712-2504	3057-6A	12SL, 14, 14	1.30	.81	.72	.58
712-2506	3057-8A	16, 16S	1.35	.82	.73	.59
712-2508	3057-10A	18	1.35	.82	.73	.59
712-2510	3057-12A	20, 22	1.53	.93	.83	.67
712-2512	3057-16A	24, 28	1.68	1.03	.91	.73
712-2514	3057-20A	32	2.15	1.32	1.18	.95
712-2516	3057-24A	36	2.60	1.59	1.42	1.15

Miniature Environmental Connectors

CONNECTORS

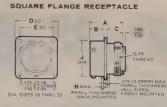
MERLIN I® CONNECTORS—SERIES 118 PER MIL-C-83723

DIMENSION CHART

					DIME	01011	JIIAIII				
Size	A In.	B In.	C in.	D Max. In.	E In.	G Thd.	H Max.	J Dia. In.	in.	U Dia. Max. in.	G Thd
10				.954	.719	%-24 NEF	*******	.591 .585		.871	58-24 NEF
12				1.047	.812	34-20 UNEF		.751 .745		1.001	%-20 UNEF
14	1.040	.442 .431	.056 .046	1.141	.906	%-20 UNEF	.087	.876 .870		1.133	78-20 UNEF
16				1.234	.969	1-20 UNEF		1.001	1.035	1.290	1-20 UNEF
18				1.328	1.062	1½16-18 NEF		1.126 1.120	1.014	1.350	11/18-18 NEF
20	• • • • •	.567	••••	1.453	1.156	13/16-18 NEF		1.251 1.245		1.470	13/16-18 NEF
22	1.103	.556	.088	1.578	1.250	15/16-18 NEF	.212	1.376 1.370		1.602	15/1e-18 NEF
24		.600 .589	*****	1.703	1,375	17/1e-18 NEF		1.501 1.495		1.711	1%s-18 NEF

589	NEF NEF	1. 3	11.495	INEF
See "	SERIES 'How to Order'' below		No. explanat	
Stock No.	Mfr's Type	Shell Size	1-9	10-Up
714-3008	118-10R10-06SN 118-10R10-06PN	10	18.00 16.48	11.23 10.27
714-3000 714-3032	118-10R12-08SN 118-10R12-08PN	12	16.55 15.10	15.50 14.14
714-3033 714-3009	118-10R12-10SN	12	21.27	13.26
714-3001 714-3034	118-10R12-10PN 118-10R14-04SN	12 14	18.78 20.25	11.71 18.98
714-3035 714-3036	118-10R14-04PN 118-10R14-05SN	14	19.54 18.89	18.36 17.70
714-3037 714-3038	118-10R14-05PN 118-10R14-12SN	14	17.48 21.83	16.38
714-3039 714-3040	118-10R14-12PN 118-10R14-15SN	14	19.37 22.21	18.16 20.80
714-3041 714-3010	118-10R14-15PN 118-10R14-19SN	14.	19.33 28.52	15.66 17.77
714-3002	118-10R14-19PN 118-10R16-08SN	14 16	24.04 22.77	14.99 21.32
714-3042 714-3043 714-3011	118-10R16-08PN 118-10R16-26SN	16	20.92 34.56	19.60 21.55
714-3003	118-10R16-26PN	16	28.33	17.66
714-3044 714-3045	118-10R18-08SN 118-10R18-08PN	18 18	28.95 23.54	27.13 22.06
714-3046 714-3047	118-10R18-11SN 118-10R18-11PN	18 18	26.63 22.53	24.96 21.10
714-3012 714-3004	118-10R18-32SN 118-10R18-32PN	18	39.26 32.13	24.46
714-3048 714-3049	118-10R20-16SN 118-10R20-16PN	20 20	36.39	28.74 25.64
714-3050 714-3051	118-10R20-39SN 118-10R20-39PN	20 20	27.38 35.74 29.39	33.48 27.52
714-3013 714-3005	118-10R20-41SN 118-10R20-41PN	20	47.46 36.60	29.59 22.82
714-3052 714-3053	118-10R22-21SN 118-10R22-21PN	22	37.36 32.21	34.99 30.18
714-3054	118-10R22-41SN	22	42.83 34.78	40.11
714-3055 714-3014	118-10R22-41PN 118-10R22-55SN	22 22	56.62	32.58 35.30 27.05
714-3006 714-3015 714-3007	118-10R22-55PN 118-10R24-61SN 118-10R24-61PN	24	43.28 60.42 46.82	27.67 29.19
714-3024	118-16R10-06SN	10	23.12	14.42
714-3016 714-3056	118-16R10-06PN 118-16R12-08SN	10 12	22.02 20.11 18.39	13.74 18.82
714-3058 714-3025	118-16R12-08PN 118-16R12-10SN	12	27.80	17.23 17.33
714-3017 714-3059	118-16R12-10PN 118-16R14-04SN	12 14	24.04 25.54	14.99 23.94
714-3060 714-3061	118-16R14-04PN 118-16R14-05SN	14	23.12	21.67 22.24
714-3062 714-3063	118-16R14-05PN 118-16R14-12SN	14	22.23 26.63 24.24	20.92
714-3064 714-3065	118-16R14-12PN 118-16R14-15SN	14 14	27.06	22.70 25.35
714-3066 714-3026	118-16R14-15PN 118-16R14-19SN	14 14	24.18 35.55	22.66 22.16
714-3018 714-3067	118-16R14-19PN 118-16R16-08SN	14 16	31.34 28.07	18.91 26.30
714-3068 714-3027	118-16R16-08PN 118-16R16-26SN	16	26.22 41.78	24.86 26.05
714-3019 714-3069	118-16R16-26PN 118-16R18-08SN	16	35.01 35.61	21.83 33.38
714-3070 714-3071	118-16R18-08PN 118-16R18-11SN	18	29.68 33.55	27.82 30.35
714-3072 714-3028	118-16R18-11PN 118-16R18-32SN	18	28.47 46.59	26.67 29.05
714-3029	118-16R18-32PN 118-16R20-16SN	18	38.91 36.62	24.33 34.29
714-3073 714-3074 714-3075	118-16R20-16SN 118-16R20-16PN 118-16R20-39SN	20	33.54 41.95	31.48 39.30 33.34
714-3076	118-16R20-39PN	20	35.59	
714-3020 714-3021	118-16R20-41SN 118-16R20-41PN	20	54.49 43.58	33.97 27.17
714-3077 714-3078	118-16R22-21SN 118-16R22-21PN	22 22 22	44.08 38.94 49.55	41.30 36.48
714-3079 714-3080	118-16R22-41SN 118-16R22-41PN	22	41.50	46.41 38.87 40.99
714-3030 714-3022	118-16R22-55SN 118-16R22-55PN	22	65.76 53.28 72.39	40.99 33.22 45.14
714-3031 714-3023	119-16R24-61SN · · · · · · · · · · · · · · · · · · ·	24 24	72.39 55.61	45.14 34.67

Rear release, polymer retention, upgraded version of MIL-C-83723/26482 connectors. Improved quality, reduced weight and greater dielectric spacing through the elimination of metal contact retention clips. Qualified to MIL-C-83723 and MIL-C-26482. Resistant to fuels, olls and cleaning solutions. Intermateable and intermountable with existing circuitry. Hard front closed entry socket insert with hooded two-tined, prod-proof socket contact.





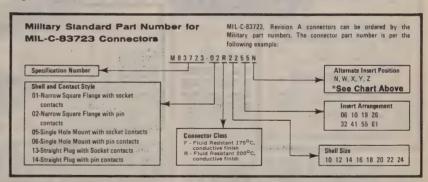
ſ	INSERT ARRANGEMENT
ı	10-6 12-8 12-10 14-4 14-5 14-12 14-15 14-19
ı	
ı	10 12 12 14 14 8 # 20 14 14 # 20 14
ı	6 # 20 8 # 20 10 # 20 4 # 12 5 # 16 4 # 16 1 # 16 19 # 20
ı	16-8 16-26 18-8 18-11 18-32 20-16
I	
ı	
I	16 16 18 18 18 8 # 16 26 # 20 8 # 12 11 # 16 32 # 20 20 16 # 16
ı	20-39 20-41 22-21 22-41 22-55 24-61
ı	
ı	
1	QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ
1	20 37 # 20 20 22 22 27 # 20 22 24 2

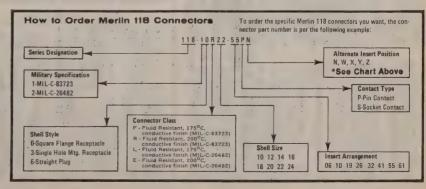
Merlin I connectors feature 40% less weight than comparable connectors, a 62% increase in dielectric separation between contacts, a reduction in the number of connector parts from 12 to 122 respectively in 10-6 through 24-61 connector arrangements to reduce fallure modes and polymer dielectric to improve connector temperature life by reducing the effects of out-gassing and weight loss. The metal clip retention system has been replaced by an all polymer retention disc resulting in lower cost and more efficient quality control. Highly suitable for any airborne application in oxygen or inert atmospheres, any application where weight and space are at a premium, any application requiring long term service at 200°C. Ideal to upgrade MIL-C-26482E installations, through retrofit and replacement. Temperature Range: -55°C to +200°C.

ALTENATE INSERT POSITIONS

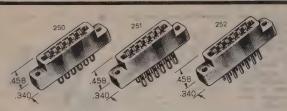
01-1	Insert		nsert	Polarizing	Positio	ns
Shel Size			W	Х	Υ	Z
10 12 14 16	-6 -10 -19 -26	0° 0° 0° 0°	90° 60° 60°	155° 165°	270° 315° 275°	295°
18 20 22 24	-32 -41 -55 -61	0. 0. 0.	85° 45° 30° 90°	138° 126° 142° 180°	222° 225° 226° 270°	265° 314° 324°

MATERIALS. Copper base alloy gold plated pin contact and socket contact. Stainless steel hood material. Aluminum alloy shells/coupling ring.



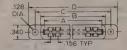


MIL & Comm. PC Card-Edge Connectors: .156" Spacing



For 1/16" PC boards. Minimum card wear, low insertion force, positive contact. Phosphor-bronze contacts with .00003" min. Sel-Rex gold-plate. Glass-filled dially! phthalate insulation, SDG-F per MIL-M-14F. Two flexible surfaces offset irregularities in PC boards. Plastic polarizing key available (listed separately). 830 VAC RMS, 5 Amps. Series 250, 251: solder tab contacts. Series 253: contact tails for dip soldering to fit .051" d. holes. Series 253: wire wrap termination. "M" In type number Indicates beryllium copper contacts with 50 micro-inches gold finish per MIL-C-2109. Av. shpg. wt., 2 oz.

DIMENSIONAL DATA



NO OF CONTACT	ALL DIMENSIONS IN INCHES						
POSITIONS	A	В	C	D			
6	1.100	1.239	1.531	1.785			
10	1.724	1.846	2.156	2.410			
12	2.036	2.177	2.469	2.723			
15	2.504	2.645	2.937	3.191			
18	2.972	3.114	3.406	3.660			
22	3.596	3.739	4.031	4.285			
25	4.067	4.208	4.500	4.754			

		Con-	No.		EA	СН	
Stock No.	Mfrs. Type	tact Pos.	of Cont.	1-	10- 24	25- 49	50- Up
750-1100 750-1101 750-1105 750-1106 750-1110 750-1119	50- 6A-20 50- 6A-20M 50-10A-20 50-10A-20M 50-12A-20 50-15A-20	6 10 10 12 15	6 6 10 10 12 15	1.82 2.73 2.48 4.05 2.83 3.84	1.55 2.35 2.15 3.46 2.43 2.89	1.23 1.89 1.72 2.77 2.03 2.29	1.05 1.55 1.42 2.31 1.62 1.93
750-1120 750-1124 750-1137 750-1138 750-1155	50-15A-20M 50-18A-20 50-22A-20 50-22A-20M 50-25A-20	15 18 22 22 25	15 18 22 22 22 25	5.69 3.93 4.64 7.90 5.51	4.80 3.33 3.92 6.75 4.68	3.85 2.65 3.14 5.39 3.73	3.21 2.21 2.61 4.49 3.11
	251 D	OUBLE-R	EADOUT-	-SOLDER	TABS		
750-1111 750-1129 750-1130 750-1150 750-1157	50-12A-30 50-20A-30 50-20A-30M 50-24A-30 50-30A-30	6 10 10 12 15	12 20 20 24 30	1.82 2.98 3.85 2.83 3.38	1.55 2.15 3.29 2.43 2.89	1.23 1.72 2.63 2.03 2.29	1.05 1.42 2.20 1.62 1.93
750-1158 750-1166 750-1173 750-1174 750-1185	50-30A-30M 50-36A-30M 50-44A-30 50-44A-30M 50-50A-30	15 18 22 22 22 25	30 36 44 44 50	5.42 6.33 4.64 7.53 5.52	4.57 5.38 3.92 6.43 4.68	3.67 4.28 3.14 5.14 3.73	3.06 3.57 2.61 4.27 3.11
	252 DO	UBLE-REA	DOUT-	OIP SOLDE	R TAILS		
750-1116 750-1134 750-1151 750-1162 750-1169 750-1177	50-12B-10 50-20B-10 50-24B-10 50-30B-10 50-36B-10 50-44B-10	6 10 12 15 18 22	12 20 24 30 36 44	1.82 2.48 2.83 3.39 3.93 4.64	1.55 2.15 2.43 2.89 3.33 3.92	1.23 1.72 2.03 2.29 2.65 3.14	1.05 1.42 1.62 1.93 2.21 2.61

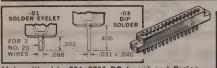
10.85

SERIES 143 PC CONNECTORS

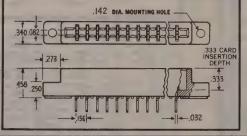
50-44B-20

SERIES 261 WIRE-WRAP

750-1179



Mate with std. .054-.070" PC board and Series 133 plugs below. Long spring base of contact prevents "setting". Drop at 2 amps is approx. 5 millivoits. Can be polarized by 143-953 key when used with 133 Series. Last two digits in type number indicate tail type. Type 01: eyelet contact. Type 03: .040x.400" pin contact, gold-flashed albaloy contacts. Rated 600V rms at 5 amps. Breakdown: 5400 VDC at sea level. Av. shpg. wt., 3 oz.



			EACH				
Stock No.	Mfr's Type	Con- tacts	1- 9	10- 49	50- 99	100- Up	
713-4800	143-006-01	6	1.64	1.31	.92	.76	
713-4809	143-010-01	10	1.72	1.38	.95	.80	
713-4816	143-012-01	12	1.89	1.51	1.05	.87	
713-4825	143-015-01	15	2.16	1.73	1.20	1.00	
713-4833	143-018-01	18	2.56	2.05	1.43	1.10	
713-4841	143-022-01	22	3.07	2.46	1.71	1.43	
713-4802	143-006-03	6	1.64	1.32	.92	.76	
713-4811	143-010-03	10	1.72	1.38	.95	.80	
713-4818	143-012-03	12	1.89	1.51	1.05	.87	
713-4827	143-015-03	15	2.16	1.73	1.20	1.00	
713-4835	143-018-03	18	2.58	2.05	1.31	1.10	
713-4843	143-022-03	22	3.07	2.46	1.71	1.43	
713-4895	143-953	Polar Key	04	.07	.06	.05	

SLOT WIDTH OB2 CONTACT POSITION A 301 MIN. CARADO ORGATION
In 117-suffix economy line. Bifurcated bellows contacts with gold plating over copper. Rated 5 amps at 600 VAC. Contacts on .156" centers with .140" row spacing. Phenolic dielectric, 5000 megohms insul. resistance. Fit boards .054" to .071" thick. Card slot provides guidance for misaligned boards. Solder eyelet tails accept up to two #18 AWG wires. Dip solder contacts are .310" long, fit .43" min. diameter hole. Av. shpg. wt. 2 oz.

	Mfr's	Con-	Tail	EACH				
	Type ?			1-9	10- 49	50- 99	100- Up	
713-6132	225-20621-401	12	Eve	3.00	2.40	1.43	1.20	
713-6134	225-21021-401	20	Eye	3.92	3.14	1.89	1.57	
713-6136	225-21521-401	30	Eye	4.69	2.38	2.25	1.87	
713-6138	225-21821-401	36	Eye	5.45	4.36	2.61	2.18	
713-6140	225-22221-401	44	Eye	5.89	3.50	2.35	1.75	
713-6142	225-22821-401	56	Eve	9.02	7.22	4.31	3,61	
713-6144	225-23621-401	72	Eve	10.49	7.02	5.01	3.51	
713-6146	225-24321-401	86	Eve	12.04	8.06	5.76	4.03	
713-6139	225-21821-404	36	Pin	5.45	4.36	2.61	2.18	
713-6141	225-22221-404	44	Pin	5.89	3.50	2.35	1.75	
713-6143	225-22821-404	56	Pin	9.02	7.22	4.31	3,61	
713-6145	225-23621-404	72	Pin	10.49	8.40	5.01	4.20	
713-6147	225-24321-404	86	Pin	12.04	9.64	5.76	4.82	

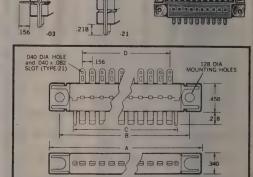
BASIC CONTACT CENTERS (Inches)

Dual readout of double-sided PC boards. Tail is sufficient for three wire wraps plus bussing. Gold-plated phosphor bronze contacts rated 5.0 amps. Voltage rating: 300 V rms at sea level. Min. voltage breakdown: 1800 V rms. Contact res.: 6.0 milliohms max. Key replaces one pr. of contacts. .025" square tail, 50001-type contact. 3 oz.

DIMENSIONS									
Contacts	A	В	С	D	E				
15 18 22 28 36 43	3.258 3.726 4.350 5.286 6.534 7.626	2.184 2.652 3.276 4.212 5.460 6.552	2.504 2.972 3.596 4.532 5.780 6.872	2.658 3.126 3.750 4.686 5.934 7.026	2.940 3.408 4.032 4.968 6.216 7.308				

Stock No.	Mfr's Type	Con- tacts	EACH					
			1-	10- 49	50- 99	100- Up		
713-7418 713-7419 713-7420 713-7421 713-7422	261-15615-2 261-15618-2 261-15622-2 261-15628-2 261-15636-2	15 18 22 28 36	6.65 7.74 6.08 10.93 13.71	5.32 6.20 4.54 8.74 10.69	3.18 3.68 3.56 5.22 6.55	2.66 3.10 2.27 4.37 5.48		
713-7423 713-7428	261-15643-2 261-70005	43 Pol. key	16.16 .07	12.92	7.74	6.46		

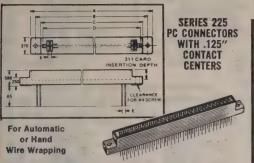
SERIES 133 156" CENTER PC PLUGS



Mate with 143 Series above. Brass, cadmium plated guide pins; cadmium plated end caps; gold over abaloy plated brass contacts. Two .128" holes for bolting to wiring board. Last two digits in type number indicate tail style. Type 03: .042" d. contact. Type 21: eyelet tail. 600 V rms. 5 amps. 3250 VDC breakdown. Shpg. wt., 2 oz.

Stock	Mfr's	0		EA	CH	
No.	Type	Con- tacts	1-	10-	50- 99	100- Up
713-4702	133-006-21	6	4,69	3.74	2.25	1.87
713-4712	133-010-21	10	4,63	3.22	1.93	1.61
713-4723	133-012-21	12	3,52	2.82	1.95	1.64
713-4721	133-015-21	15	4,06	3.24	2.26	1.90
713-4735	133-018-21	18	4,20	3.36	2.33	1.96
713-4743	133-022-21	22	6.65	5.72	3.17	2.66
713-4700	133-006-03	6	4.28	2.42	2.04	1.71
713-4710	133-010-03	10	2.48	1.98	1.38	1.17
713-4721	133-012-03	12	3.48	2.46	1.71	1.43
713-4727	133-015-03	15	3.41	2.72	1.90	1.59
713-4733	133-018-03	18	3.52	2.82	1.95	1.64
713-4741	133-022-03	22	3.85	3.08	2.18	1.80

MILITARY AND COMMERCIAL PC CONNECTORS WITH .100" AND .125" SPACING



Bifurcated bellows contacts on .125x250 grid spacings provide smooth positive, two-point mating action no matter how irregular the board surface. Contacts are confined in dielectric to determined pre-load force for fixed definite separation, eliminating possibility of shorts. Provide dual readout of double-sided PC boards. Electrical grade phenolic. Phosphor bronze contacts plated gold over copper. For .054 to .071" boards. Current rating: 5 amps. Voltage: 600 VAC at sea level. Terms. 65" 1.3 oz rating: 5 ar .65" 1. 3 oz.

.125" CONTACT CENTERS

Contacts	Α	В	С	D	Е
44	3.680	3.380	3.080	2.945	.125
60	4.680	4.380	4.080	3.945	.125
86	6.305	6.005	5.705	5.570	.125
100	7.180	6.880	6.580	6.445	.125

				EACH					
Stock	Type	Con-			10-	50-	100-		
No.	225-	tacts	ters	9	49	99	Up		
713-6150	804-22	44	.125		6.10	3.65	2.80		
713-6151	804-30	60	.125	10.11	8.08	4.83	3.71		
713-6157	804-43	86		14.03	11.22	6.71	5.15		
713-6153	804-50	100	.125	15.78	12.62	6.93	5.79		

CONNECTORS WITH TERMINALS ON .100" CENTERS

• Molded of Diallyl Phthalate SDG-F

Two terminal styles—solder tab or wire wrap. Available in sizes from 36/72 to 43/86 contacts. Insulators, with or without mounting lugs, molded of diallyl phthalate Type SDG-F. Barriers between contacts accept 50PK3 polarization keys. Cantilever contact design handles ½6" thick single or double sided boards. Contacts preloaded against insulator stop to provide gap uniformity and assure rapid build up of force to the PC board. Construction combines min. insertion force with max. contact pressure. Current Rating: 3 amps. Rated Voltage: 600 VDC. Insulation Res: 5000 megohms min. Contact Res: 16 milliohms max. Contacts: Phosphor bronze. Contact Plating: 0003 min. gold over .00005 min. nickel on contacting area, .00001 gold on remainder of contact. Av. shpg. wt: 2 oz.

251 SERIES SOLDER TAB

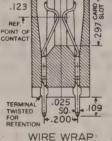
		No.	EACH				
Stock	Mfr's	of	1-	10-	25-	50-	
No.	Type	Cont.	9	24	49	Up	
750-1197	5086C10	43/86	10.85	8.28	6.68	5.53	

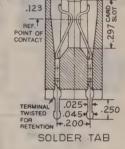
253 SERIES WIRE WRAP

*Type 50-PK-3 Polarizing Pin, for between contact

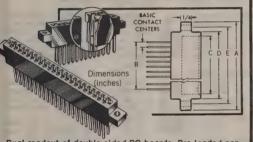
pormi	.,		 	PUU	
750-1191	5072C30	36/72		4.91	
750-1195 750-1199	5080C30 5086C30	40/80 43/86		5.05 5.50	
750-1104	50PK3*			.061	







SERIES 261 .100" WIRE-WRAP PC CONNECTORS



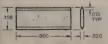
Dual readout of double-sided PC boards. Pre-loaded can-Dual readout of double-sided PC boards. Pre-loaded cantiliver contacts are assembled into dielectric with precise spacing for automatic solderless wrap terminations. Tall is sufficient for three wire wraps plus bussing. Contacts confined in dielectric to determined pre-load force for fixed, definite separation; eliminating possibility of shorts. Gold-plated phosphor bronze contacts rated 5.0 amps. Voltage rating: 300 V rms at sea level. Min. voltage breakdown: 1800 V rms. Contact res.: 6.0 milliohms max. Key replaces one pr. of contacts. .025" square tail, 50001-type contact. 3 oz.

.125" CENTER DIMENSIONS

Contacts	Α	В	С	D	E
18	3.199	2.125	2.445	2.599	2.881
28	4.449	3.375	3.695	3.849	4.131
36	5.449	4.375	4.695	4.849	5.131

.125" CENTER

				EA	CH	
Stock No.	Mfr's Type	Con- tacts	1- 9	10- 49	50- 99	100- Up
713-7413	261-12518-2	18	5.53	4.42	2.55	2.34
713-7415	261-12528-2	28	9.32	7.46	4.08	3.42
713-7416	261-12536-2	36	10.82	8.66	5.18	4.33

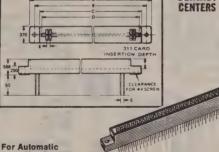


POLARIZING KEYS

For .156" units on facing page. (*) Takes up one contact position. (†) Does not reduce contact position.

Stock	Type		EA	CH	
No.	No.	1-9	10-24	25-49	50-Up
750-1102 750-1103	50PK-1* 50PK-2†	.083	.076 .076	.061 .061	.051 .051

SERIES 225 PC CONNECTORS WITH .100" CONTACT



Wire Wrapping

Bifurcated bellows contacts on .100x.200 grid spacings Bifurcated bellows contacts on .100x.200 grld spacings provide smooth positive, two-point mating action no matter how irregular the board surface. Contacts are confined in dielectric to determined pre-load force for fixed definite separation, eliminating possibility of shorts. Provide dual readout of double-sided PC boards. Electrical grade phenolic. Phosphor bronze contacts plated gold over copper. For .054 to .071" boards. Current rating: 5 amps. Voltage: 800 VAC at sea level. Terminals .65" long. Av. wt. 3 oz.

	.100"	CONTACT	CENTER	RS	
Contacts	A	В	С	D	E
44 60 100	3.155 3.955 5.955	2.855 3.655 5.655	2.555 3.355 5.355	2.420 3.220 5.220	.100 .100

				EACH				
Stock	Type	Con-	Cen-	1-	10-	50-	100-	
No.	225-	tacts	ters	9	49	99	Up	
713-6165	805-22	44	.100	7.63	6.10	3.65	3.05	
713-6158	805-30	60		10.11	8.08	4.83	4.04	
713-6160	805-50	100	.100	15.78	12.62	7.55	6.31	

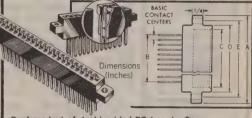
50 GP-1 CARD POST GUIDE

For any 251 or 253 series connector with clearance mounting holes. Polypropylene card guide. Nylon polarizing key. Phosphor bronze contacts. SDG-F per MIL-

M-14. 1 oz. 750-1099. 1-9 .37 10-24 .31 25-Up

SERIES 225 POLARIZING KEY
Type 225-594. Between-contact key for
.125" center wire-wrapables and .156"
center solder types.
713-6101. Type 225-594 Key.... Each .07

SERIES 261 .125" WIRE-WRAP PC CONNECTORS



Dual readout of double-sided PC boards. Same specs as Series 261 to the left, 3 oz.

125" CENTER DIMENSIONS

Contacts	A	В	С	D	E								
18 28 36	3.199 4.449 5.449	2.125 3.375 4.375	2.445 3.695 4.695	2.599 3.849 4.849	2.881 4.131 5.131								

.125" CENTER Stock Con-50-99 100-Up 49 No. tacts 713-7413 713-7415 713-7416 261-12518-2 261-12528-2 261-12536-2 18. 28 36 -5.53 9.32 10.82 4.42 7.46 8.66 2.34 3.42 4.33

GUIDE TO SELECTING PC Card Edge Connectors

Allied stocks a complete line of printed circuit connectors covering spacing from .075" to .156" centers in a variety of contact styles. Come in single and dual readout in a great range of contact positions. The chart below will help you locate the type needed faster and with more efficiency than ever before. Insulator column in table uses abbreviation P for Phenolic and DP for Diallyl

					Contact	Туре	s
Centers	Series	Mfgr.	Insu- lator	Eye-	Dip Solder	PC Tab	Wire Wrap
.156 .156 .156 .156 .156	143 225 261 50 600	Amphenol Amphenol Amphenol Cinch Vector	DP P DP DP	X X X	X	X	Х
.125	225 261	Amphenol Amphenol	P				X
.100 .100 .100	225 261 50	Amphenol Amphenol Cinch	P P DP				X X X
.075	64	Amphenol	DP			Χ	

UTIN

-1.062-

1.531 E 2.312

G

1.343

H

1.031-0

1.500-

٦

HUBBELL MANUAL PARTY

1.500-

R

S

T

W

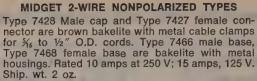
X

Y

(AA)

- 15/32-

(0)



Stock	304-/-				EACH			
No.	o. Type Fig	Fig.	Description	1- 24	25- 49	50- Up		
813-7428	7428	A	Male Cap	1.00	.74	.63		
813-7427	7427	В	Female Conn.	1.82	1.34	1.12		
813-7466	7466	C	Male Base	2.15	1.58	1.34		
813-7468	7468	D	Female Base	2.65	1.93	1.65		

0

(K)

1843

N

1.812

TYPE 5012B. Tests 3-wire AC outlets for proper ground. Plug into 3-wire receptacle. Lights indicate: Circuit Okay; Improper Ground; Improper Neutral; Reverse Polarity; Reversed Ground and

Power; Power is Off. 6 oz. 768-9090 Each 9.65

MIDGET 3-WIRE POLARIZED TYPES

Similar to above but for 3-conductor cables. Insulation is black bakelite.Clamps will accommodate cords from $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{4}$ " O.D. Polarization prevents incorrect connection. Rated 10 amps at 250 V. or 15 amps at 115 V. 3 oz.

813-7486 7486 C Male Base 3.	42 2.50 05 2.22 77 2.71	2.12 1.89 2.31
------------------------------	-------------------------------------	----------------------

STANDARD 3-WIRE POLARIZED TYPES

Type 7572, Type 7556, Type 7557 have rust-resistant metal housings. Type 7555 is bakelite. Clamps take cords 1%4" to %4" O.D. All 10 amps at 250 V; 15 amps, 125 V. Armored. Wt. 4 oz.

Stock	Mfr's			EACH			
No.	Type Fig	Fig.	Description	1- 24	25- 49	50- Up	
813-7572 813-7555 813-7556 813-7557	8582 7555 7556 7567	E F G H	Male Cap* Female Conn. Male Base Female Base	4.82 4.47 3.72 4.10	3.52 3.26 2.71 2.99	3.00 2.78 2.31 2.55	

CHASSIS-MOUNTING AC SOCKET

Compact AC socket has lug terminals. Rated 10 amps at 250 volts or 15 amps at 125 volts. Mnt. hole. ${}^{25}_{4}$ x ${}^{25}_{2}$ ". Overall, $1\frac{1}{2}$ x $1\frac{1}{2}$ ". 1 oz.

Stock No.	Mfr's			EAC	H	
	Туре	Fig.	1-24	25- 49	50- 99	100- Up
750-0829	2R2	J	.32	.20	.18	.16

MIDGET 3-WIRE GROUNDING TYPES

Positive lock connectors designed for 15 amp, 125 V grounding applications. Hollow brass grounding sleeve in cap mates with brass split pin. All 1 1 2 dia. *With cord grips. 3 oz.

Stock	Mfr's				EACH	
No.	Туре	Fig.	Description	1-9	10- 49	50- Up
813-7591 813-7593 813-7594	7591 7593 7594	K M L	Female Conn. Female Conn.* Male Cap*	4.22 4.44 3.31	2.90 2.76 2.28	2.46 2.36 1.94

HEAVY-DUTY 3-WIRE POLARIZED TYPES

Type 7313 has bakelite housing; Types 7327, 7328 have rust-resistant metal. Clamps take cords $\frac{7}{6}$ - $\frac{9}{4}$ O.D. Rated 20 amps at 250 V or 10 amps at 575 V. Av. shpg. wt. 4 oz.

			10			
813-7313 813-7327 813-7328	7327	N		4.82	4.56 3.51 5.38	2.99

AC CONNECTOR ASSEMBLIES

For Types 61, 160, 78S, 86CP, other grooved con-For Types 61, 160, 78S, 86CP, other grooved connectors. Drawn steel. Lower bottom of sockets, plugs, connectors, 1\(^{\alpha}_6\)" below mounting surface. For cable-to-cable or cable-to-panel applications.

Type 3-13 end rubber grommet to \(^{\alpha}_6\)" thick cable;
1" long. Type 3-24 cable clamp to \(^{\alpha}_6\)" thick cable;
1\(^{\alpha}_6\) long. Type 3-858 thermoplastic, end outlet, strain relief, \(^{\alpha}_6\)" i.D. Type 61-61 recessed mounting shell lowers S sockets, CP plugs and outlet type connectors 1\(^{\alpha}_6\)" below surface; fits 1\(^{\alpha}_6\)" hole;
\(^{\alpha}_2\)" mnt. holes on 1\(^{\alpha}\)" ctrs. Wt. 3 oz.

Stock Mfr's				EACH				
No.	No. Type	Fig. Description	1-	25- 49	50- 99	100- Up		
713-0013 713-0024 713-0858 713-2123	3-13 3-24 3-858 61-61	R S X T	Black plug cap Black plug cap Plastic plug cap Recessing she!	.25 .40 .48 .30	.20 .34 .36 .22	.17 .27 .30 .17	.14 .23 .24 .15	

U.S. LISTED ELECTRICAL ACCESSORIES

TYPE 179 RUBBER HANDLE PLUG. Approved for 2-wire 15 amp use. Use with Type 178 for extension cords. % d. x 1%" I. Wt. 4 oz. 785-0179. 1-24 Ea. .25 25-99 Ea. .20 100-Up Ea. 18





TYPE 919B BAKELITE PLUG. With fingergrip. Cap size, $\%x1\%_{16}x1\%_{16}$ ". Screw terminals. 15 amps. Brown.

-0919. 1-24 Ea. .28 25-99 Ea. .21

TYPE 400B VINYL CUBE TAP. Brass spring prongs. 3-way outlet. Rated 15 amps at 125 volts. 1½ h. x ½" w. Shpg. wt. 8 oz. 785-0400. 1-24 Ea. 40 25-99 Ea. .32 100-Up. Ea. .28

TYPE C900B JIFFY PUSH-PULL PLUG. Push POSJ cable through hole in cap. Pull for positive connections. 1½ 1. x ¼" w. 785-0009. 1-24 Ea. .35 25-99 Ea. .32

TYPE 203 PARALLEL GROUND PLUG. Rubber handle. "U" ground. 3-wire. Two fit standard duplex receptacle. ½ d. x 15%" l. 2 oz. 785-0203. 1-9 Ea. .92 10-24 Ea. .75 25-Up Ea. .67

TYPE 178 RUBBER LINE CORD CONNECTOR. Rated 15 amps at 125 volts. Cable clamp. 1¼ d, x. 2¼ h, x. 450" hole, Wt. 3 oz. 785-0178. 1-24 Ea. .70 25-99 Ea. .55



all l

TYPE 224 LARGE PARALLEL-SLOTS CONNECTOR. Rubber handle cap. Bronze contacts. Cable clamp. 15 amps at 125 volts. 11/32 d. x 21/36 h. x .450" hole. Wt. 3 oz. 785-0224. 1-9 Ea. .74 10-24 Ea. .59 25-Up ... Ea. .52



TYPE 419 VINYL PARALLEL GROUND ADAPTER. Same function as Type 832. 15 amps @ 125 V. 11/6 I. x 1 w. x 13/6" h. 3 oz. 785-0419. 1-9 Ea. .40 10-25 Ea. .32 25-Up Ea. .28

SOLDERLESS WIRE CONNECTOR. Strip wire end; push into connector, screw cap down—wire firmly interconnected. U.L. Listed. Sold per pkg. of 100 only.



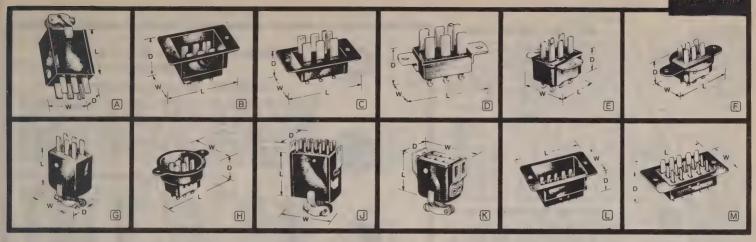
Stock	Mfr's			EACH					
No.	Туре	Fig.		1-	25- 49	50- 99	100- Up		
713-0013 713-0024 713-0858 713-2123	3-13 3-24 3-858 61-61	R S X T	Black plug cap Black plug cap Plastic plug cap Recessing she!l	.25 .40 .48 .30	.20 .34 .36 .22	.17 .27 .30 .17	.14 .23 .24 .15		

PLUGS AND SOCKETS

61 series is 2 pole; 160 series is 2 pole with grounding lug. Black Nylon rated 15 A at 120 V grounding lug. Black Nylon rated 15 A at 120 V AC/DC. U.L. Recog. except Fig. W types which mount in $1\%_{4}''$ keyed hole with retaining ring supplied. Fig. Y types have molded-in mtg. plates except, § retaining-ring-mounted plate; require $1\%_{2}''$ mtg. holes and have $\frac{5}{2}''$ slotted holes on $1\%_{2}''$ to $1\%_{1}''$ ctrs., except 61-MIP-61F, $1\%_{1}''$ mtg. hole, $\frac{5}{2}''$ holes on $1\%_{2}''$ ctrs. Fig. Z types mount in $1\%_{1}''$ hole, have two $\frac{5}{2}''$ holes on $1\%_{1}''$ cts. $\frac{7}{2}\%_{1}''$ l. D. grommet instead of $\frac{3}{2}''$ clamp. *Not illus. Wt. 3 oz. illus. Wt., 3 oz.

Stock	Mfr's				EA	CH	
No.	Туре	Fig.	Desc.	1-24	25- 49	50- 99	100- Up
713-2112 713-2101 713-2113 713-2102 713-2117	61 - M 61 - F 61 - M1 61 - F1 61 - MIP - 61 F	W Y Y	male female §male §female female	.85 .77 1.00 .93 .85	.66 .60 .78 .68	.49 .45 .58 .52	.43 .39 .50 .47
713-2115 713-2110 713-5210 713-5211 713-5202 713-5204	61-M10 61-F10 160-10N 160-11N 160-2N 160-3N	Z Z * W Y	male female temale male female male	1.21 1.15 1.68 1.85 1.80 2.29	.88 .90 1.22 1.48 1.22 1.78	.70 .66 .97 1.07 1.04 1.32	.61 .58 .84 .93 .89
713-5203 713-5205 713-5206 713-5207 713-5208 713-5209	160-4N 160-5N 160-6N 160-7N 160-8N 160-9N	Z Z AA †AA †AA	female male §female male female male	2.09 2.54 1.89 2.97 2.01 2.31	1.54 1.86 1.46 2.38 1.48 1.84	1.20 1.46 1.08 1.36 1.14 1.33	1.05 1.28 .95 1.19 1.01 1.16

170 • *ALLIED*



400 AND 2400 SERIES PLUGS AND SOCKETS

400 Series: Max. rating, 1100 V rms at 15 amps; 3750 watts max. on any contact. Polarized; for either cap or panel mounting. "Knife-switch" type contacts engage both sides of the flat plug contacts. Plug prongs are ½" wide x 1/16" thick. Caps finished in black wrinkle; have insulating lining. Interchangeable with 2400 Series. 7 oz.

2400 Series: Max. rating, 1700 V rms at 10 amps (2500 watts on any contact). Socket contact makes contact over practically its entire length. Contacts are mounted into recessed pockets with phenolic barrier, on top and bottom side, greatly increasing the leakage path. Black phenolic body. 7 oz.

300 SERIES PLUGS AND SOCKETS

For light and medium duty, Polarized; suitable for either cap or panel mounting. Black phenolic body. "Knife-switch" type socket contacts engage both sides of the flat brass plug contacts. Snap-in socket contact permit external prewiring, and removal or replacement of individual contacts. Plug prongs are 5/32" wide x 3/64"

thick. Caps have black wrinkle finish and insulating liners. Rated 730 V rms at 10 amps, under most conditions. When all contacts are carrying full current simultaneously, total rating is 7.5 amps (1875 watts) for 2-12 contacts, 4.5 amps (1125 watts) for 15-33 contacts. *2-contact units are round; others rectangular, 7 oz.

	DISCOU	INT .	-0. 4. Qu	uantity	,		10-24	K	* 40 .	25-9	99		100-Up	
	SCHEDU	-		scount			15%			35 9	%	v. 1	55%	
		AND 2400 S							300 SE	RIES				
	A CCT PL	UGS WITH CAR	BLE CLAMPS	EACH		E AB PL	UGS FOR CHASSIS	MOUNTIN			G FP P	LUG WITH FLU	SH PLATE	
Con-	Mfr's	Dimensions, Inches L x W x D	Stock No.	1- 9	Con-	Mfr's	Dimensions, Inches	Stock	EACH 1- 9	Con-	Mfr's	Dimensions, Inches	Stock	EACH 1- 9
tacts 4	P-404-CCT	427/11/11/	750-0506	1.98	tacts 2°	Type P-302-A8	Lx W x D 21/32 dia. x 17/32x7/16	No. 750-0404	.40	tacts 6	Type P-306-FP.	21/16X11/4X7/16	No. 750-0427	.98
6 8	P-406-CCT P-408-CCT	12/32X1/2X1/8 127/32X115/16X1/8	750-0512 750-0518 750-0524	2.25 2.48 2.90	3 4	P-303-AB P-304-AB	1x1½ex½e 34x15/ex¾e	750-0410 750-0416	.50	12	P-308-FP P-312-FP	2%18X134X7/16 2%18X134X7/18	750-0434 750-0447	1.05 .49
10 12	P-410-CCT P-412-CCT P-2402-CCT	1°/32XZ/8X1/8 1 ²⁷ /32XZ ¹³ /16X1 ¹ /8	750-0524 750-0530 750-0553	3.12	6 8 10	P-306-AB P-308-AB	1x15/1ex7/1e 11/4x15/1ex7/1e	750-0422 750-0429	.68		G FP SOC	CKETS WITH FL	USH PLATE	
4	P-2404-CCT P-2406-CCT	1-732X176X176 12732X1176X176 12732X1176X176 12732X1176X176 12732X276X176 12732X176X176 12732X176X176 12732X176X176	750-0558 750-0563	2.05	12 15	P-310-AB P-312-AB P-315-AB	1% sx15% sx7% s 1%x1% sx7% s 1%x11% sx7% s	750-0436 750-0442 750-0449	1.00 1.25	2 °	S-302-FP S-303-FP	2½ex1¼x½e 2½ex1¼x½e	750-0613 750-0622	.75 .75 .82
8	P-2408-CCT P-2410-CCT	127/32X1 716X1 /6	750-0568 750-0573	2.55	18	P-318-AB P-324-AB	1 78X1 716X716 1 1 5/16X1 1 1/16X7/16 2 9/16X1 1 1/16X7/16	750-0445 750-0456 750-0470	1.48	4 6	S-304-FP S-306-FP	21/16x1 1/4x7/16 21/16x1 1/4x7/16	750-0628 750-0635	1.00
12	P-2412-CCT	1 ²⁷ / ₃₂ X2 ¹³ / ₁₆ X1 ½	750-0578	2.98	24	P-333-AB	3½x11½ex½e	750-0491	3.48	10	S-308-FP S-310-FP	2%16X134X716 2%16X134X716	750-0642 750-0648	1.12 1.25
		CKETS WITH CA				AB SOC	KETS FOR CHASS	S MOUNTI	NG	12	S-312-FP	2%ex1%x%e	750-0655	1.40
2 4	S-402-CCT S-404-CCT	1 ²⁷ / ₃₂ x ⁵ / ₈ x1 ½ 1 ²⁷ / ₃₂ x1 ½ 6x1 ½ 1 ²⁷ / ₃₂ x1 ½ x1 ½	750-0708 750-0714	1.98	2*	S-302-AB	21/32 dia. x 17/32x7/32	750-0609 750-0618	.42 .47 .60	2°	P-302-RP	21/1ex11/2x51/64	750-0409	.78
6 8	S-406-CCT S-408-CCT	1 ²⁷ / ₃₂ x1 ½x1 ½ 1 ²⁷ / ₃₂ x1 ¹⁵ / ₁₆ x1 ½ 1 ²⁷ / ₃₂ x2 5/ ₈ x1 ½	750-0720 750-0726	2.68	4 6 8	S-303-AB S-304-AB S-306-AB	1x1½ex¾e ¾x1½ex¾s 1×15/ex¾e	750-0618 750-0624 750-0630	60	4 6	P-304-RP P-306-RP	21/16X1 1/2X5 1/64 21/16X1 1/2X5 1/64	750-0415 750-0428	.92 1.05
10 12	S-410-CCT S-412-CCT S-2406-CCT	127/32X278X1 /8 127/32X213/16X1 /8 127/32X1 /2X1 /8	750-0732 750-0738 750-0771	3.42 3.82 2.37	8	S-308-AB S-310-AB	1x15/16x7/16 11/4x15/16x7/16 13/16x15/16x7/18	750-0637 750-0644	1.09	{	H RP SOCK	ETS WITH RECE	SSED PLATE	s
10	S-2410-CCT S-2412-CCT	1 ²⁷ / ₃₂ X2 ³ / ₈ X1 / ₈ 1 ²⁷ / ₃₂ X2 ¹³ / ₁₆ X1 / ₈	750-0781 750-0786	3.00	10 12 15 18	S-312-AB S-315-AB	1½X1°/16X7/16 1½X1¹¹¼6X7/16	750-0650 750-0657	1.15	2*	S-302-RP S-304-RP	2½1ex1½x5½4 2½1sx1½x5½4	750-0614 750-0629	.90
		PLUGS FOR C			18 21	S-318-AB S-321-AB	115/16X111/16X7/16 21/4X111/16X7/16 25/16X111/16X7/16	750-0664 750-0671	1.75	6 8	S-306-RP S-308-RP	21/16X1 1/2X51/64 28/16X2X51/64	750-0636 750-0643	1.07 1.28
2 .	P-402-DB	13/x15/x17/32	750-0501	1.38	21 24 33	S-324-AB S-333-AB	2%/18X1 11/16X7/18 31/2X11/16X7/16	750-0678 750-0699	2.48 3.68	J cc	T-L PLUGS W	ITH CABLE CLA	AMPS AND L	ATCHES
6	P-404-DB P-406-DB	23/16x15/6x17/32 25/6x15/6x17/32	750-0507 750-0511	1.70		E cor I	PLUGS WITH CABL	e of a supe		2.	P-302-CCT-L P-303-CCT-L	81/64X ²¹ /32 dia.	750-0406 750-0412	1.08
12	P-408-DB P-412-DB	31/16x15/x17/32 315/16x15/x17/32	750-0519 750-0531	2.25	2*	P-302-CCT	61/64X21/22 dia	750-0405	.90	4.	P-304-CCT-L P-306-CCT-L	61/64X1X7/16 61/64X34X11/16 15/64X1X11/18	750-0418 750-0425	1.22
B DE	B RECESSED	SOCKETS FOR	CHASSIS MC	UNTING	3 4	P-303-CCT P-304-CCT	61/64X1X7/18	750-0411 750-0417	1.00	10	P-308-CCT-L P-310-CCT-L	15/64X1 1/4X11/16 113/64X1 1/16X11/16	750-0432 750-0439	1.42
4	S-2404-DB S-2406-DB	23/16x15/6x17/32 25/6x15/6x17/32	750-0767 750-0772	1.72	8	P-306-CCT P-308-CCT	"%«XXX" /ve 1%«XXX" /ve 1%«XXX" /ve 13%«XX /veX" /ve 13%«XX /veX /ve 13%2X /vi /veX 1 13%2X /vi /veX 1 13%2X /vi /veX 1 13%2X /vi /vi /vi 13%2X /vi	750-0424 750-0431 750-0438 750-0444	1.12	12	P-312-CCT-L	113/84X11/4X15/18	750-0445	1.70
8	S-2408-DB S-2410-DB	31/16x15/x17/32 31/x15/x17/32	750-0777 750-0782	2.22	10 12 15	P-310-CCT P-312-CCT	1 13/64 X 1 3/16 X 1 1/16 1 13/64 X 1 1/4 X 15/16	750-0438 750-0444	1.32 1.42 1.98			SOCKETS WITH	750-0611	1.10
12	S-2412-DB	315/16X15/8X17/32	750-0787	2.25 2.75	18 21	P-315-CCT P-318-CCT P-321-CCT	1'732X1'716X178 1'732X2X178	750-0451 750-0458 750-0465	2.28	3 4	S-302-CCT-K S-303-CCT-K	61/64X ² 1/32 dia. 61/64X1X ⁷ /16 61/64X ³ /4X ⁷ /18	750-0620 750-0626	1.20
<u>C</u> :		OCKETS FOR CH			24	P-324-CCT P-327-CCT	117/32X258X178	750-0472 750-0479	3.18	6 8	S-302-0CT-K S-303-CCT-K S-304-CCT-K S-306-CCT-K S-308-CCT-K S-310-CCT-K	15/64X1X11/16 15/64X11/4X11/18	750-0633 750-0640	1.38
2 4	S-402-SB S-404-SB	1½x1¾x7/16 115/16x1¾x7/16	750-0711 750-0717	1.45	30 33	P-330-CCT P-333-CCT	117/32x31/4x11/8 117/32x39/1ex11/8	750-0486 750-0493	4.12 4.50	10 12	S-310-CCT-K S-312-CCT-K	113/64 X19/16 X11/16 113/16 X11/4 X18/16	750-0647 750-0653	1.75 1.95
6 8 10	S-406-SB S-408-SB S-410-SB	2%x1%x7/16 213/16x13/x7/16	750-0723 750-0729 750-0798	2.32 2.70 3.15						_		SOCKETS FOR O	CHASSIS MO	UNTING
12 12	S-412-SB S-2412-SB	31/4x11/6x7/16 311/16x11/6x7/16 311/16x11/6x7/16	750-0741 750-0789	3.58	2°	S-302-CCT	OCKETS WITH CAE	750-0610	.92	4	S-304-DB	27/64X17/32X58/64	750-0627	1.12
12					3	S-303-CCT -S-304-CCT	61/64X ²¹ /32 dia. 61/64X1X ⁷ /16 81/64X ³ /4X ¹ 1/16	750-0619 750-0625	1.00	6 8	S-306-DB S-308-DB	27/64X17/32X ⁶⁸ /64 27/64X17/32X ⁵⁸ /64	750-0634 750-0641 750-0654	1.25 1.40 1.78
4	P-404-AB	JGS WITH ANGL	750-0504	1.28	8	S-306-CCT S-308-CCT	15/64X1X11/18 15/64X11/4Y11/18	750-0632 750-0639	1.20	12 15 18	S-312-DB S-315-DB S-318-DB	21/64×17/32×55/64 213/16×15/8×17/32 31/8×15/8×17/32	750-0661 750-0668	2.08
6 8	P-406-AB P-408-AB	2 ¹⁵ / ₁₆ ×1×½ 2 ²⁸ / ₃₂ ×1×½	750-0510 750-0516	1.48 1.75	10	S-310-CCT S-312-CCT	113/64X18/16X11/16	750-0646 750-0652	1.45					
	D AB SOCK	CETS WITH ANG	LE BRACKE	TS	15 18	S-315-CCT S-318-CCT	117/32X111/16X11/6 117/32X2X11/6	750-0659 750-0666	2.18 2.45 2.95	M 5	S-315-SB	235%4X1%X7/18	ASSIS MOUI	2.08
4	S-404-AB S-406-AB	21/32x1x1/2	750-0712 750-0718	1.50	21 24 27	S-321-CCT S-324-CCT S-327-CCT	117/32x25/16x11/8 117/32x25/8x11/8 117/32x115/16x11/8	750-0673 750-0680 750-0687	2.32	18	S-318-SB S-321-SB	255/64X17/8X7/18 311/10X17/8X7/18	750-0670 750-0677	2.37 2.85 4.22
8 12	S-408-AB S-412-AB	2 ¹⁵ / ₃₂ x1x½ 2 ²³ / ₃₂ x1x½ 3 ²⁵ / ₃₂ x1x½	750-0718 750-0724 750-0736	2.25	30	S-327-CCT S-330-CCT S-333-CCT	117/32X37/4X17/8 117/32X37/4X17/8 117/32X38/16X17/8	750-0694 750-0701	4.32	21 30 33	S-330-SB S-333-SB	47/64X13/8X7/16 427/64X13/8X7/16	750-0698 750-0705	4.22 4.62
	0-412-NO	9 /32A1A/2	730-0730	7,11	- 00	0 000 001	. , , , , , , , , , , , , , , , , , , ,							

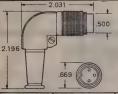
Chassis and Cable-Mount Connectors



STRAIGHT CABLE PLUG

Nickel-plated shell and coupling ring. Molded black polycarbonate dielectric Insert and bushing. Flexible clear PVC plastic strain relief post. Positive internal cable clamp accepts cable to 7/32". 3 A per contact. 120V except 12 contact: 60V. Contacts: Pin-silver plated brass. Socket—silver plated phosphor bronze.

Stock	Mfr's Type	Con-	EACH						
Nos.		tacts	1-9	10-24	25-49	50-Up			
713-4200	91-T-3260-1	3	1.96	1.57	.99	.94			
713-4201	91-T-3300-1	4	2.55	2.04	1.30	1.22			
713-4202	91-T-3360-1	5	2.65	2.12	1.34	1.28			
713-4203	91-T-3400-1	6	2.68	2.14	1.34	1.28			
713-4204	91-T-3475-1	7	2.95	2.36	1.49	1.42			
713-4205	91-T-3635-1	12	4.65	3.72	2.36	2.24			



RIGHT ANGLE CABLE PLUG

Nickel-plated shell and coupling ring. Molded black polycarbonate dielectric insert and bushing. Flexible clear PVC plastic strain relief post. Positive internal cable clamp accepts cable to 7/32". 3 A per contact. 120V except contact: 60V. Contacts: Pin—silver plated brass. Socket—silver plated phosphor bronze.

713-4206 713-4207 713-4208 713-4209	91-T-3300-6 91-T-3360-6 91-T-3400-6 91-T-3475-6	4 5 6 7	3.55 3.68 4.22 4.50	2.84 2.94 3.38 3.60	1.79 1.86 1.89 2.02	1.70 1.77 1.79 1.91
713-4210	91-T-3635-6	12	5.65	4.52	2.86	2.70

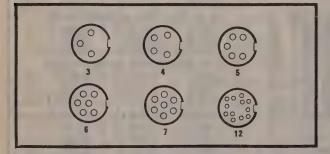


PANEL RECEPTACLES

Machine brass shell with bright nickel plating. Mounts in .720" diam. keyed panel cutout with spanner type nut. Mates with either straight or right angle cable plugs. Socket contact with pre-tinned solder eyelet tail standard. 3 A per contact. 120V except 12 contact: 60V. Contacts: Pinsilver plated brass. Socket—silver plated phosphor bronze.

713-4211	91-T-3263	3	1.56	1.25	.80	.75
713-4212	91-T-3303	4	1.77	1.42	.89	.85
713-4213	91-T-3363	5	1.58	1.26	.80	.75
713-4214	91-T-3403	6 7 12	1.77	1.42	.89	.85
713-4215	91-T-3478		2.02	1.62	1.01	.97
713-4216	91-T-3638		6.70	5.36	3.40	3.21

CONTACT ARRANGEMENTS



STANDARD 8 & 11-PIN PLUGS AND SOCKETS



Mount in $11\%_4$ " keyed hole (use 8RO retainer ring). Type 8PB fits octal socket; 11RB takes 11PB plug. Type 16F snap-on shield fits all. Shpg. wt. 1 oz.

		سننا النار		EACH				
Stock No.	Mfr's Type	Fig.	Description	1-9	10- 24	25- 49	50- Up	
750-0962	8PB	Α	8-Pin Plug	.88	.47	.44	.40	
750-1025	11PB	A	11-Pin Plug	.45	.28	.25	.21	
750-1027	11RB	В	11-Pin Skt.	.48	.38	.30	.26	
750-1047	16F		Shield	1.25	1.00	.89	.70	
750-0971	8R0		Ret. Ring	.23	.14	.13	.12	

202 TWO-CONTACT POLARIZED CONNECTORS



¾"-24 threaded fittings. P-202-B and S-202-B have 1" mtg. ctrs. Prefix "P" denotes male, "S" female. Use S-202-B with P-202-CCT for cable extension. 3 oz.

	No. Type	Fig.	EACH					
Stock No.			1- 24	25- 49	50- 99	100- Up		
750-0403	P-202-CCT	D	1.50	1.03	.88	.67		
750-0607	S-202-CCT	E	1.58	1.06	.89	.74		
750-0402	P-202-B	C	1.80	1.36	1.15	.91		
750-0606	S-202-B	C	1.82	1.27	1.06	.88		
750-0608	S-202-CCT-THE	3 F	2.08	1.42	1.17	97		



[3

6

7/8

8

0

SPECIAL-PURPOSE & MULTI-PURPOSE CONNECTORS

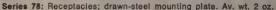
MINIATURE HEXAGON CONNECTORS

Molded of glass-filled diallyl phthalate. Silver-base-plated contacts are gold-finished to prevent tamishing or corrosion. All hardware is nickel-plated brass. Voltage breakdown: 5000 V rms, 60 Hz at sea level. Current rating: 7.5 amps. Hex-nut types are for panel mounting in .5156" hole. Locking-clip types mate with hood and cable-clamp types where the locking feature is required to provide strain relief for soldered connections. Locking ring on cable clamp swivels 30° for engaging with panel-mounted locking clip. Hex-nut types are %" dia.; cable-clamp types %4" dia. (length, 11%6"). Av. shpg. wt. 5 oz.

	Stock	Mfr's	Con-	Typs	Fig.		EA	CH	
	No.	Type	tacts			1-9	10-49	50-99	100-Up
	713-4500	126-010	5	Male Recept.	2	1.60	.94	.80	. 64
	713-4515	126-191	7	Male Recept.	2	1.85	1.12	.94	.74
- don't	713-4502	126-012	9	Male Recept.	2	2.15	1.28	1.08	.86
	713-4526	126-217	. 5	Male Plug	4	3.45	1.96	1.74	1.38
5/8 @ 3/4	713-4517	126-195	7 1	Male Plug	4	3.82	2.26	1.92	1.53
	713-4529	126-220	9	Male Plug	4	4.09	2.44	2.07	1.63
	713-4525	126-216	5	Male Recept.	3	1.69	1.80	.85	.68
J	713-4519	126-197	7	Male Recept.	3	1.98	1.20	1.00	.80
	713-4528	126-219	9	Male Recept.	3	2.31	1.38	1.16	1.63
	713-4501	126-011	.5	Fem. Recept.	1	2.51	1.50	1.26	1.00
	713-4516	126-192	170	Fem. Recept.	1	3.16	1.90	1.60	1.26
	713-4503	126-013	9.	Fem. Recept.	1	3.92	2.34	1.98	1.57
T AVAILABLE	713-4532	126-223	5	Fem. Plug	4	4.47	2.66	2.26	1.79
	713-4518	126-196	7	Fem. Plug	4	5.12	3.06	2.59	2.05
34 · · · · · · · · · · · · · · · · · · ·	713-4531	126-222	. 9	Fem. Plug	4	5.87	3.48	2.96	2.35
	713-4527	126-218	.5	Fem. Recept.	3	2.67	1.60	1.35	1.07
	713-4520	126-198	.7	Fem. Recept.	3	3.35	1.98	1.69	1.34
151	713-4530	126-221	9	Fem. Recept.	3	4.09	2.44	2.07	1.63
115/16									

MINIATURE SPECIAL-PURPOSE CABLE CONNECTORS

Series 91: For shielded or unshielded cables. Black phenolic elements in cadmium-plated brass shells, held by set screws. Polarized contact spacing. Accommodates cables to 1/4" dia. Suffix "L" in Type No.—long (1%6"); "S"—short (1%6"). Av. shpg. wt, 2 oz.



						EAG	CH	
	Stock No.	Mfr's Type	Con- tacts	Fig.	1-24	25- 49	50- 99	100- Up
13/16	713-4050 713-4051 713-4052	91-MPF3L 91-MPS3S 91-MPF4L	3 3 4	5 5 5	1.04 1.04 1.04	.74 .74 .74	.52 .52 .52	.45 .45 .45
	713-4053 713-4054 713-4055	91-MPF4S 91-MPM3L 91-MPM3S	3 3	5 6 6	1.04 .85 .85	.74 .60 .58	.52 .43 .43	.45 .38 .38
0	713-4056 713-4057 713-4058	91-MPM4L 91-MPM4S 91-MPM5L	4 4 5	6	.96 .97 .98	.66 .68 .70	.48 .49 .50	.41 .42 .43
11/4 19/16	713-4059 713-2906 713-2908	91-MPM6L 78-PCG3 78-PCG5	3 5	7 7	.99 .78 .97	.72 .58 .73	.52 .50 .61	.45 .44 .55

MINIATURE SERIES 71 PLUGS, 78 SOCKETS 15/32-

Series 78 are retainer-ring sockets that mount in %" round or "D" hole. Black bakelite. Series 71 are compact, high-dielectric plugs. Nickel-plated brass prongs recessed to prevent shorts. Contacts polarized. Rated 5 amps at 500 V. Av. shpg. wt. 1 oz.

713-2925	78-S3S	3	9	.23	.18	.14	.12
713-2927	78-S4S	4	9	.35	.26	.20	.18
713-2929	78-S5S	5	9	.36	.28	.22	.20
713-2931	78-S6S	6	9	.36	.28	.22	.20
713-2355	71-38	3	10	.25	.20	.17	.15
713-2360	71-4S	4	10	.30	.24	.20	.17
713-2366	71-58	5	10	.32	.26	.22	.19
713-2374	71-6S	6	10	.37	.30	.25	.22



- 13/16 -

8 MINIATURE TYPE CP PLUGS—FOR TUBE SOCKETS

Molded from diallyl phthalate; molded-in strain relief post. Retainer-ring mounting. Contacts gold over silver plating. 1500 V rms at 5 A. Overall seated height, 13/16." Overall width: 86-895, 554."; 86-897, 76". Pin circle diameter: 7-pin, 36"; 9-pin, 15/12". Wt. 2 oz.

Stock	Mfr's	Description	EACH				
No.	Type	10 00 10 10	1-24	25-49	50-99	100-Up	
713-3640 713-3642	86-895 86-897	7-Pin with Cap 9-Pin with Cap	1.99	1.48	1.17 1.36	1.05	



MULTICONTACT PLUGS AND SOCKETS

Shielded cable and chassis connectors. Non-rotating; gold over silver-plated contacts. Interlocking barriers prevent shorting. 900 V, 60 Hz AC. *Insert only; all others with can. Av. shpg. wt. 3 oz.

		Stock	Mtr's	Con	tacts	Descrip-		EAUN		
_	-	No.	Type	#16	#20	tion	1-24	25-49	50-99	100-Up
		713-4507	126-151°	3		Chassis Plug	3.92	2.34	1.90	1.18
	21/16	713-4508	126-152	3	12	Cable Plug	5.67	4.54	3.50	2.87
	The state of the s	713-4537	126-806°	4	16	Chassis Plug	3.49	2.80	2.20	1.78
600	超 「	713-4531	126-807°	4	16	Chassis Socket	2.78	2.22	1.98	1.42
	To Manual Property	713-4542	126-811	4	16	Cable Plug	5.61	4.50	3.50	2.84
1000	L 19/32 11	713-4541	126-810	4		Cable Socket	4.90	3.92	2.98	2.49
64	11)									

Solderless Terminals, Connectors, and Crimping Tools

CONNECTORS

INSTRUCTIONS: Circle the number in each step that meets your design requirements, and enter that number in the appropriate space in the box to the right. Upon completion of steps 1 through 4, you have automatically specified the correct terminal to fill your needs.

STEP	STEP 2	STEP 3	STEP

STEP ONE: Select Barrel Style

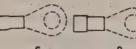


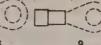


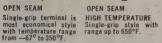
STEP TWO: Select Tongue Style











BRAZED SEAM Single-grip style for use with solid wire; crimp in any direction.

INSULATED SINGLE- BELLMOUTH INSULATED Flared end of polyvinyl chloride sleeve accepts large O.D. insulated wire. Temperature range from —40° to 220°F.

DOUBLE-GRIP
Bronze sleeve and nylon
insulation give top performance on solid or
stranded wire. Crimp in
any direction on wire
and sleeve for complete
support in areas of
bration. Temperature
range —60° to 250°F.

TERMINAL KITS WITH CRIMPER/CUTTER

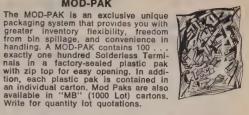
TERMINALS FEATURE

MOD-PAK

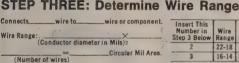


975-4063. 1-4 Ea. 45.50 5-Up Ea. 34.00 ASSORTED TERMINALS

SERVICING OUTFIT







Insert This Number in Step 3 Below	Wire Range	Circular Mil Area Min. Max.	Insert This Number in Step 3 Below	Wire Range	Circular Mil Area Min. Max.	Insert This Number in Step 3 Below	Wire Mil Area Range Min. Max.
2	22-18	509 2,600	- 4	12-10	5,180 13,000	6	6 20,800 33,100
3	16-14	2,050 5,180	5 .	5	13,100 20,80	0 0	No Wire

STEP FOUR: Determine Stud Size (at left) or Style of Quick Connect (at right).



STEP FIVE: Select the Terminal that Best Meets Your Needs

For Ring, Spade, Hook, and Flag Terminals

Provides excellent electrical connections with high mechanical characteristics. Constructed of electrolytic cop-

per and tin-plated for maximum conductivity and corrosion resistance. Sold only in packages of 100.

NON	-INSUL	ATED	TERM	IINALS	SOLD					100	NSUL				
						P	RICE PI	R PKG				P	RICE P	ER PKG	
Wire	Stud	L.	Type	Stock	Mfr's	1-	10-	50-	100-	Stock	Mfr's	1-	10-	50-	100-
Size	Size			No.	Type	9	49	99	Up	No.	Туре	9	49	99	Up
22-18	4	18/32	Ring	975-5404	11204	3.65	3.29	2.96	2.26	975-6704	51204	6.37	5.73	5.16	3.94
22-18	5-6	19/32	Ring	975-5405	11205	3.65	3.29	2.96	2.26	975-6705	51205	6.37	5.73	5.16	3.94
22-18	5-6	21/32	Ring	975-5406	11206	3.65	3.29	2.96	2.26	975-6706	51206	6.37	5.73	5.16	3.94
22-18	8 10	43/44	Ring Ring	975-5408 975-5410	11208	3.65	3.29	2.96	2.26	975-6708 975-6710	51208 51210	6.37	5.73 5.73	5.16 5.16	3.94
16-14	5-6	3/15	Ring	975-5425	11305	3.65	3.29	2.96	2.26	975-6735	51305	6.37	5.73	5.16	3.94
16-14	5-6	43/64	Ring	975-5426	11306	3.65	3.29	2.96	2.26	975-6736	51306	6.37	5.73	5.16	3.94
16-14	8.	23/32	Ring	975-5428	11308	3.65	3.29	2.96	2.26	975-6738	51308	6.37	5.73	5.16	3.94
16-14	10	23/32	Ring	975-5430	11310	3.65	3.29	2.96	2.26	975-6740	51310	6.37	5.73	5.16	3.94
12-10	10	23/32	Ring	975-5440	11410	4.51	4.06	3.66	2.81						
12-10	12-1/4	83/84	Ring	975-5444	11414	6.05	5.45	4.90	3.75	075 7404	F0004		F 70	F 40	2.04
22-18 22-18	4 5-6	17/32 5/8	Spade Spade	975-5604 975-5606	13204 13206	3.25	2.92	2.63	2.02	975-7104 975-7106	53204 53206	6.37	5.73 5.73	5.16 5.16	3.94 3.94
22-18	5-0 8	78 23/32	Spade	975-5608	13208	3.65	3.29	2.96	2.26	975-7108	53208	6.37	5.73	5.16	3.94
22-18	10	23/32	Spade	975-5610	13210	3.65	3.29	2.96	2.26	975-7110	53210	6.37	5.73	5.16	3.94
16-14	4-6	1/6	Spade	975-5636	13306	3.65	3.29	2.96	2.26	975-7136	53306	6.37	5.73	5.16	3.94
16-14	8	23/32	Spade	975-5638	13308	3.65	3.29	2.96	2.26	975-7138	53308	6,37	5.73	5.16	3.94
16-14	10	23/32	Spade	975-5640	13310	3.65	3.29	2.96	2.26	975-7140	53310	6.37	5.73	5.16	3.94
22-18	4-6 . :	11/16	Spade		4 6 6 6 6	4 5-					F 4000				
22-18	8	43/64	w/Fla. Hook	975-5706 975-5808	14206 15208	3.25	2.92	2.63	2.02	975-7206 975-7258	54206 55208	6.37	5.73 5.73	5.16 5.16	3.94 3.94
16-14	4-6	19/32	Hook	975-5830	15306	3.65	3.29	2.96	2.26		33200				
16-14	8	21/32	Hook	973-3630	10000	3.03	3.23	2.30	2.20	975-7308	55308	6.37	5.73	5.16	3.94
22-18		%	Butt	975-6002	17202	3.65	3.29	2.96	2.26	975-7502	57202	6.37	5.73	5.16	3.94
16-14		%	Butt	975-6032	17302	3.65	3.29	2.96	2.26	975-7532	57302	6.37	5.73	5.16	3.94
12-10		11/16	Butt	975-6042	17402	3.65	3.29	2.96	2.26						
		2/16	Male	975-6101	18201	3.65	3.29	2.96	2.26						
22-18		21/32 17/32	Male Fem.	975-6102 975-6104	18202 18204	3.65 3.65	3.29	2.96	2.26						
18-14		3/4	Male	975-6131	18301	3.65	3.29	2.96	2.26	975-7601		6.37	5.73	5.16	3.94
18-14		3/4	Fem.	975-6132	18302	3.65	3.29	2.96	2.26	975-7602					4.61
		18/32	Angle	975-6133	18303	3.65	3.29	2.96	2.26						
18-14		1/2	Angle	975-6134	18304	3.65	3.29	2.96	2.26						
16-14		- %	Snap	975-6201	19301	2.81	2.53	2.27	1.74						
		3/4	Snap	975-6202	19302	6.66	5.99	5.39	4.13						
BEL	BELLMOUTH INSULATED SOLD IN PACKAGES OF 100 DOUBLE-GRIP INSULATED														

BEI	LMOUT	H IN	SULA	red :	SOLD	IN PA	ACKA	GES	OF 1	100 DOUBLE-GRIP				INSULATED	
22-18 16-14 22-18 22-18	8 10 4 8	7/8 81/64 47/64 88/64	Ring Ring Spade Spade	975-7618 975-7630 975-7644	61208 61310 63204	7.45 7.45 7.45	6.70 6.70 6.70	6.03 6.03 6.03	4.61 4.61 4.61	975-8104 975-8108	93204 93208	11.13	10.02	9.02	6.90
22-18 22-18 16-14 22-18	10 4-6	61/84 57/84	Spade Spade w/Fla.	975-7660 975-7666	63310 64206	7.45 7.45	6.70	6.03		975-8140	93310		10.02	9.02	6.90
16-14		83/84	Fem.							975-8232	98302	1	10.02	9.02	6.90

SOLD IN PACKAGES OF 100
 3.65
 3.29
 2.96
 2.26

 3.65
 3.29
 2.96
 2.26

 975-6554
 31514
 19.71
 17.74
 15.97
 12.23

SERVICING OUTFIT MODEL 2195. Handy kit contains approximately 140 solderless terminals in most popular sizes, in addition to a Type 1900 crimper/cutter which handles 18-22, 14-16 and 10-12 wires. Also strips insulation from No. 22 to 10 wire, cuts wire and bolts. Assortment and tool are supplied in convenient clear plastic case with slotted compartment dividers for identifying index tabs. Overall case size: 83/4 x6x13/4". Shpg. wt., 2 lbs. 975-3670. 1-4 Ea. 14.25 NON-INSULATED **TERMINAL KIT**

MODEL 5000. Contains 1000 single-grip models such contains 1000 single-grip non-insulated type solderless terminals, plus a combination crimping-cutter installing tool all housed in a compact steel storage box that provides complete protection of tool and terminals—in the field or in the factory. Includes 50 each of twenty different types and sizes of solderless terminals to meet almost all applications and needs. Shpg. wt. 10 lbs.

975-4100. 1-4 Ea. 44.80 5-Up Ea. 34.00



MODEL 1900 CRIMPING TOOL



Ruggedly built tool designed for fast crimping of solder-Ruggedly built tool designed for tast crimping of solder-less terminals. Has 3 dies for use with non-insulated terminals on 18-22, 14-16, and 10-12 wires. Also strips insulation from No. 22 to 10 wire; cuts wire and boits. Rugged steel; comfortable plastic handles. Wt. 1 lb. 975-3580. 1-9......Ea. 6.55 10-Up......Ea. 5.24

MODEL 1963 ALL-PURPOSE CRIMPING AND CUTTING TOOL



Provides all the tools needed for electrical connections Provides all the tools needed for electrical connections without soldering. Has crimping dies for insulated and non-insulated terminals. Cuts and strips wire; slices bolts. Wire cutter located at tip of tool for close work. Stripping notches for Nos. 10, 12, 14, 16, 18, 20 and 22 wire. Slices bolts 10-32, 6-32, 5-40, 10-24, 8-32 and 4-40. Plastic handles. Wt. 1 lb. 975-3590. 1-9......Ea. 7.43 10-Up.....Ea. 6.88

MODEL T-1710 CRIMPING TOOL



Crimps all terminals in wire range of 22 to 10 gauge. Built-in rachet, safety release and terminal locator. Com-pound lever action assures uniform crimps; meets or exceeds Mil-Spec pullout tests. Plastic handles. Shpg. 975-2470. 1-4......Ea. 51.58 5-Up..... Ea. 46.20

CONNECTORS

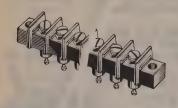
Terminal Blocks, Terminal Strips, Solderless Blocks

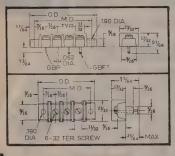
FEED-THRU TERMINAL BLOCKS

• Three Styles to Handle Most Requirements Black Phenolic Construction

• 2 to 20 Terminals

• Rated 20 Amps, 300 Volts





Rated 20 amps, 300 volts. External terminals 6-32 screws. 2 thru 20 terminals. Black phenolic. Tin-plated terminals. Types: GBP, GBFT. Flat base, feed-thru block with turrettype solder terminal (GBFT) on .062" dia. PC pins (GBP) for internal connection. Takes up to #12 AWG wire. Type GFT. Insulated feed-thru terminal block. Insulation of each terminal for full ¼" terminal-to-ground clearance through ½%" chassis. Internal solder connection.

NOTE: Last number in Mfr's Type indicates no. of terminals.

TYPE GFT FULLY INSULATED TERMINALS

On all	10.5-7-	Last		EA	CH	
Stock	Mfr's	Lgth.	1-	25-	100-	500-
No.	Type		24	99	499	Up
764-0502	GFT-2	1 ²¹ / ₃₂	.70	.53	.45	.42
764-0504	GFT-4	2 ¹⁷ / ₃₂	1.33	1.01	.86	.81
764-0506	GFT-6	3 ¹³ / ₃₂	1.98	1.50	1.27	1.19
764-0508	GFT-8	4 ¹ / ₄	2.60	1.98	1.68	1.57
764-0510	GFT-10	5 ¹ / ₈	3.25	2.46	2.09	1.96
764-0512 764-0514 764-0516 764-0518 764-0520	GFT-12 GFT-14 GFT-16 GFT-18 GFT-20	6 6	3.88 4.53 5.15 5.80 6.45	2.95 3.43 3.92 4.40 4.88	2.51 2.92 3.33 3.74 4.15	2.34 2.73 3.11 3.50 3.88

TYPE GBP PRINTED CIRCUIT PINS											
764-0404	GBP-4	2 ¹⁷ / ₃₂	1.15	.88	.75	.70					
764-0406	GBP-6	3 ¹³ / ₃₂	1.68	1.28	1.08	1.01					
764-0408	GBP-8	41/ ₄	2.20	1.67	1.42	1.33					
764-0410	GBP-10	51/ ₈	2.98	2.07	1.76	1.64					
764-0412	GBP-12	6	3.25	2.46	2.09	1.96					
764-0414	GBP-14	6%	3.78	2.86	2.43	2.27					
764-0416	GBP-16	7%	4.30	3.26	2.77	2.59					

TYPE	GBFT	FEED-THRU	TURRET	TERMINALS

764-0606 764-0608	GBFT-6 GBFT-8	3 ¹³ / ₃₂ 4½		1.08 1.42	1.01
764-0612 764-0620	GBFT-12 GBFT-20			2.09 3.44	1.96 3.22

BLACK AND TRANSPARENT SOLDERLESS BLOCKS



915-925

SERIES 905



Series 900. Black polyvinylchloride terminals. Red pushbuttons lock wire. 27 amps maximum, 380 volts at 60°C maximum. Beryllium copper contacts. Series 915 are flexible blocks for use with ¼" quick-disconnect terminals. If you need a smaller size, the series of terminals can easily be cut to fit your needs. Transparent polyvinylchloride. 20 amperes maximum, 250 volts at 80°C maximum. #12 wire maximum. (°) The last two numbers in the Type No. indicate the number of terminals. Wt. 4 oz.

Stock	Mfr's	Description	Langeth		EA	CH	
No.	Type	Description	Length	1- 9	10- 24	25- 99	100- Up
868-1010 868-1014 868-1027 868-1031	900-12° 900-24° 915-12° 915-24°	Pushbutton Pushbutton Flexible Flexible	2½16X¾" 4½X¾" 21¾16X1½" 5½X1½"	1.62 3.00 .89 1.67	1.30 2.40 .71	1.08 2.00 .59	.93 1.71 .51 .95

Series 905. Solderless block. Bends in any direction. Series of terminals can be cut to fit your needs. Flexible polyester. 30 A max. 380 V at 60°C maximum. Each ½x%x3¾" with 1-1/32" spacing between terminal centers. #10 wire maximum. Ship. wt. 4 oz. 868-1020. 1-9 ea. 1.98 10-24 ea. 1.58 25-99...ea. 1.32



LUG-TYPE TERMINAL STRIPS

# % 861	862	813	820	849
815	863	864	829	830
853	847	865	857	850
869	854	# % 855	866	360 860
859	871	879	3/8 1000000000000000000000000000000000000	900
a Califor Casted Steel			1.1.3/	L-1=-3/

- Solder Coated Steel Lugs for Fast Soldering
- Bakelite Strips Provide Dependable Insulation

Dark brown bakelite strips, \%" thick x \%" wide. Equipped with solder-coated steel lugs that have \%" centers, \%" diameter mounties below.

ing noies. Si	ipg. wt. it	4.				_						
				ACH							CH	
Stock No.	Mfr's Types	1-	100- 999	1000- 2499	2500- Up	Stock No.	Mfr Type		1- 99	100- 999	1000- 2499	2500- Up
920-0830 920-0853 920-0847 920-0865 920-0857	830 52C 853 53 847 53A 865 53B 857 53E	.06 .10 .10 .10	.049 .081 .081 .081 .054	.041 .068 .068 .068 .045	.035 .058 .058 .058 .039	920-0849 920-0863 920-0864 920-0829 920-0866	863 864 829	51F 52 52A 52B 54C	.05 .06 .06 .06	.039 .049 .049 .049 .066	.032 .041 .041 .041 .055	.028 .035 .035 .035 .047
920-0850 920-0868 920-0854 920-0855 920-0861	850 53F 869 54 854 54A 855 54B 861 51	.07 .11 .11 .08	.054 .091 .091 .065 .039	.045 .076 .076 .054 .032	.039 .065 .065 .046 .028	920-0860 920-0859 920-0871 920-0879	859 871	55 55A 55B 55C	.12 .12 .12 .12	.098 .098 .098 .098	.082 .082 .082 .082	.071 .071 .071 .071
920-0862 920-0813 920-0815 920-0820	862 51A 813 51B 815 820 51C	.05 .05 .07 .05	.039 .039 .058 .039	.032 .032 .049 .032	.028 .028 .042 .028	920-0848 920-0900 920-0858 920-0870	900	56 56A 56B 56C	.13 .13 .13 .13	.104 .104 .104 .104	.086 .086 .086 .086	.074 .074 .074 .074

Allied offers fast same-day shipment of industrial quantities at OEM price discounts. To assure the fastest and most accurate service, please specify manufacturer's

type number and stock number on each order. Depend on Allied for prompt off-the-shelf delivery in industrial quantities for all your electronic needs.

SCREW-TYPE TERMINAL STRIPS



For multiple outputs. Bakelite strips are γ_{16}'' thick; except $^{8}7_{22}''$ thick. Solder-coated brass terminals are on $^{8}7_{16}''$ centers with $^{8}8_{16}''$ mounting holes. For a variety of connecting applications. Av. shpg. wt. 1 oz.

Stock	Mfr's		Mtg.	EACH			
	Type	Term. Ctrs.	1- 49	50- 99	100- 499	500- Up	
920-0872 920-0873 920-0874 920-0875 920-0876 920-0928 920-0930	872 873 874 875 876 928 930*	2 3 4 5 6 8	115/18 13/4" 23/16" 25/6" 31/16" 315/16" 413/16"	.15 .22 .27 .32 .36 .49	.12 .17 .22 .26 .29 .39	.10 .14 .18 .22 .24 .32 .41	.085 .123 .154 .185 .208 .278

SERIES 3000 TERMINAL STRIPS



Steel terminals with cadmium plating for easy soldering. Spaced on %6" centers. Insulated strip of rugged, molded bakelite. Cadmium-plated steel mounting base. Mounting holes at each end of base for No. 6 screws. 1 oz.

Canali	Mfr's	Ter-	104-	Mtg. EACH				
Stock No.	. Type minals Ctrs.	Ctrs.	1- 99	100- 999	1000- 2499	2500- Up		
920-2802 920-2803 920-2804 920-2805 920-2806 920-2807	3002 3003 3004 3005 3006 3007	2 3 4 5 6 7	15/18" 15/8" 15/8" 115/18" 21/4" 29/18"	.12 .15 .18 .20 .22	.10 .12 .15 .16 .17	.08 .10 .12 .13 .14	.069 .085 .104 .112 .123 .131	
920-2808 920-2809 920-2810 920-2812 920-2813	3008 3009 3010 3012 3013	8 9 10 12 13	2½" 3¾'s" 3½" 4½" 4½"	.26 .28 .31 .35	.21 .23 .25 .28 .30	.17 .19 .21 .23	.147 .162 .177 .201 .216	

TERMINAL STRIPS



Carefully constructed of black $\%_{32}''$ bakelite. Screw-type terminals are cadmium plated with tinned lugs. Use for many connecting applications. Average shipping weight 4 oz.

Stock	ock Mfr's		Mtg.		EACH			
No.	Type	Term.	Ctrs.	1- 24	25- 99	100- 499	500 Up	
920-0902 920-0903 920-0908	902 903 908	2 3 8	1½" 2" 4½"	.27 .34 .71	.22 .27 .56	.18 .23 .47	.15 .19 .40	

Barrier Block and Strip Terminals

BARRIER-TYPE TERMINALS



Barriers interposed between terminal positions for more insulation. Follow edge of strips, terminate at base, insure positive contact. Series 140, 5-40x¾" binder head-screws; 141, 6-32x¼"; 142, 8-32x¾".

NOTE: First number in Mfr's Type is number of terminals Series 140. Leakage path between terminals %". Base %" wide x %" high. Use with Series 1600 fanning strips. Av. shpg. wt. 14 oz.

15 AMPS, 1100/1200 VOLTS RMS*

Stock	Mfr's	EACH				
No.	Туре	1-9	10-24	25-49	50-Up	
750-1316	2-140	.32	.26	.22	.19	
750-1365	3-140	.37	.30	.25	.21	
750-1410	4-140	.42	.40	.30	.26	
750-1455	5-140	.50	.48	.39	.31	
750-1500	6-140	.65	.56	.45	.39	
750-1545	7-140	.70	.65	.51	.44	
750-1590	8-140	.77	.74	.60	.49	
750-1635	9-140	.92	. 83	.66	.53	
750-1675	10-140	1.02	.90	.73	.62	
750-1720	11-140	1.07	.96	.78	.66	
750-1756	12-140	1.15	1.09	.86	.72	
750-1800	13-140	1.25	1.15	.91	.78	
750-1835	14-140	1.32	1.24	.99	.84	
750-1875	15-140	1.42	1.32	1.08	.88	
750-1908	16-140	1.50	1.40	1.13	.93	
750-1976	18-140	1.75	1.57	1.26	1.07	
750-2024	20-140	1.92	1.73	1.39	1.16	
750-2050	21-140	2.00	1.83	1.47	1.22	

Series 141. Leakage path between terminals 1/16". B se 11/6" wide x 1/2" high. Use with Series 161 fanning strips. Av. shpg. wt. 14 oz.

2	O AMPS,	1100/160	O VOLT	RMS*	
750-1319	2-141	.35	.29	.23	.20
750-1368	3-141	.45	.40	.30	.26
750-1413	4-141	.60	.51	.42	.36
750-1458	5-141	.70	.65	.49	.46
750-1503	6-141	.77	.72	.56	.48
750-1548	7-141	.97	.85	.67	.56
750-1593	8-141	1.05	.93	.75	.64
750-1638	9-141	1.15	1.06	.84	.71
750-1678	10-141	1.25	1.16	.92	.68
750-1723	11-141	1.37	1.26	1.00	.86
750-1759	12-141	1.45	1.35	1.10	.90
750-1838	14-141	1.75	1.58	1.26	1.07
750-1878	15-141	1.87	1.67	1.33	1.13
750-1911	16-141	1.97	1.79	1.44	1.20
750-1979	18-141	2.17	2.00	1.60	1.33
750-2027	20-141	2.40	2.23	1.78	1.50

Series 142. Leakage path between terminals %". Base 1%" wide x %" high. Use with Series 162 fanning strips. Av. shpg. wt. 14 oz.

	30	AMPS,	1600/2500	VOLTS	RMS*	
750-1322	T	2-142	.40	.36	.27	.23
750-1371	1	3-142	.50	.47	.38	.30
750-1416		4-142	.67	.63	.49	.42
750-1461		5-142	.82	.75	.60	.49
750-1506		6-142	1.00	.88	.71	.60
750-1596		8-142	1.25	1.15	.91	.77
750-1641		9-142	1.37	1.27	1.03	.85
750-1681		10-142	1.50	1.43	1.14	.93
750-1762		12-142	1.87	1.67	1.33	1,13
750-1881		15-142	2.27	2.09	1.66	1.39
750-1914		16-142	2.40	2.23	1.78	1.50
750-1951		17-142	2.55	2.35	1.89	1.57

MINIATURE BARRIER STRIPS

Series 171 single 2-56x%// binding head screw terminals on 1/4" ctrs.; 1/6x1/3/2". Series 172 double 2-56x%/6" screw terminals on 1/4" ctrs.; 1/6x1/3/2". Series 173 single 4-40x 1/6" screw terminals on 1/4" ctrs.; 1/6x1/2" closed back. 1000 Volts rms, current depends on size wire used. 5 oz.

1000 10110 1	no, carron	dobound	0 011 0120	*****	041 0 021
750-1443	4-171	.52	.47	.39	.31
750-1533	6-171	.70	.65	.50	.43
750-1622	8-171	.90	.78	.64	.51
750-1534	6-172	1.27	1.17	.92	.79
750-1706	10-172	1.97	1.78	1.44	1.18
750-1784	12-172	2.27	2.08	1.65	1.39
750-1863	14-172	2.57	2.37	1.90	1.58
750-1448	4-173	.65	.56	.46	.40
750-1538	6-173	.92	.82	.65	.53
750-1627	8-173	1.12	1.06	.83	.70

BARRIER BLOCKS

Barriers between each terminal provide increased insulation; follow edge of strips and terminate at base. Molded bakelite base. All have brass solder terminals with hottn dipped finish. Sizes: Series 140-Y, %" wide x %" high; 141-Y, 1%" wide x ½" high; 142-Y, 1%"

high; 141-Y, 11/6" wide X V2" mgn; 1-2.
%"high.
Series 140-Y. Leakage path between terminals, %". Designed for use with Series 1600 fanning strips. Av. wt.
for Ratings: 15 amps, 1100/1200 volts RMS*.

oz. Hatings	s: 15 amps,	, 1100/12	UU VOITS I	KMS".	
750-1302	2-140-Y	.40	.33	.26	.23
750-1367	3-140-Y	.45	.41	.33	.27
750-1412	4-140-Y	.62	.55	.45	39
750-1457	5-140-Y	.75	.68	.54	.46
750-1502	6-140-Y	.90	.84	.67	.55
750-1547	7-140-Y	1.02	.91	.74	.63
750-1592	8-140-Y	1.15	1.06	.84	71
750-1677	10-140-Y	1.40	1.29	1.06	.87
750-1758	12-140-Y	1.70	1.54	1.22	1.05
750-1837	14-140-Y	1.97	1.79	1.44	1.20
750-1910	16-140-Y	2.22	2.01	1.61	1.34
750-2026	20-140-Y	2.72	2.50	2.00	1.66

*Higher Rating Measured With Marker Strip.

140 SERIES 76 176 177 177 177 177 177 177 177 177 1	39/64]
141 SERIES 1/6 //6 PROPERTY OF THE PROPERTY O	541 SERIES 19/0 3/4
142 SERIES 15/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16	542 SERIES 1% % 18 19 19 19 19 19 19 19 19 19 19 19 19 19

BARRIER BLOCKS (Cont'd)

Series 141-Y. Leakage path, 7/6". For Series 161 fanning strips, Av. wt. 5 oz. 20 amps. 1100/1600 volts rms *

Stock	Mfr's	EACH				
No.	Туре	1-9	10-24	25-49	50-Up	
750-1305	2-141-Y	.45	.41	.31	.26	
750-1370	3-141-Y	.65	.56	.45	.39	
750-1415	4-141-Y	.77	.74	.60	.49	
750-1460	5-141-Y	1.00	.89	.72	.59	
750-1505	6-141-Y	1.12	1.03	.83	.70	
750-1550	7-141-Y	1.30	1.21	.95	.82	
750-1595	8-141-Y	1.45	1.34	1.09	.90	
750-1640	9-141-Y	1.67	1.51	1.20	1.00	
750-1680	10-141-Y	1.82	1.66	1.32	1.12	
750-1761	12-141-Y	2.12	1.98	1.58	1.31	
750-1913	16-141-Y	2.90	2.64	2.11	1.77	
750-2029	20-141-Y	3.60	3.28	2.65	2.20	

Series 142-Y strips. Rated					
750-1324 750-1508	2-142-Y 6-142-Y	.60	.48 1.29	.40	.31
750-1508	10-142-Y	1.40 2.27	2.09	1.05 1.66	.86 1.39

^{*}Higher Rating Measured With Marker Strip.

500 SERIES BARRIER BLOCKS



High, wide barrier permit high voltage ratings. Material be-tween the terminals at the base strengthens the entire strip

Series 540. nals. Creeps Term. 3/8" C	age distandureC., .160"	ce ½". d. holes	11/8" wi 3. 15 A, 2	de by 3% 2300 V. 1	¼″ high. 4 oz.
750-1356	2-540	72	62	49	12

750-1356	2-540	.72	.62	.48	.42
750-1405	3-540	.95	.84	.67	.55
750-1450	4-540	1.10	1.03	.82	.68
750-1495	5-540	1.25	1.08	.85	.72
750-1540	6-540	1.55	1.45	1.15	.96
750-1584	7-540	1.65	1.32	1.10	.90
750-1629	8-540	1.82	1.52	1.21	1.03
750-1712	10-540	2.17	1.82	1.46	1.21
750-1788	12-540	2.57	2.11	1.68	1.43
750-1867	14-540	2.90	2.42	1.94	1.61
750-1905	15-540	3.07	2.56	2.04	1.71
750-1936	16-540	3.25	2.72	2.18	1.82
750-2046	20-540	3.97	3.31	2.66	2.23
750-2075	24-540	4.90	3.92	3.15	2.63
750-2085	26-540	5.05	4.24	3.38	2.82
750-2094	30-540	5.80	4.82	3.87	3.22

Series 541. Double 6-32x $\frac{1}{4}$ " binder head screw term. Creepage distance $\frac{6}{4}$ ". 1 $\frac{6}{4}$ " wide by $\frac{11}{4}$ " high. Term. $\frac{7}{16}$ " C.-C., .175-.180" d. holes. 20 A, 2800 V, RMS.

18 01 01, 1110 1100 01 1101001 00 11, 10100 1, 111101								
750-1357	2-541	.95	.75	.62	.50			
750-1406	3-541	1.10	.90	.73	.61			
750-1451	4-541	1.25	1.08	.85	.72			
750-1496	5-541	1.45	1.21	.95	.82			
750-1541	6-541	1.65	1.45	1.15	.96			
750-1630	8-541	2.05	1.68	1.34	1.13			
750-1713	10-541	2.35	1.99	1.59	1.32			
750-1789	12-541	2.80	2.34	1.87	1.55			
750-1868	14-451	3.15	2.63	2.09	1.75			
750-1937	16-541	3.50	2.91	2.33	1.95			
750-2047	20-541	4.22	3.55	2.83	2.36			
750-2086	26-541	5.35	4.48	3.59	2.99			
750-2095	30-541	6.12	5.10	4.07	3.40			

Series 542. Double 8-32x%" binder head screw term. Creepage distance %4". 15%" wide x %" high. 30 A, 4000

V MIVIO. 14 0	12.					
750-1452	4-542	1.45	1.21	.95	.82	
750-1542	6-542	1.92	1.60	1.28	1.09	
750-1631	8-542	2.37	2.01	1.60	1,33	
750-1714	10-542	2.90	2.42	1.94	1.60	
750-1790	12-542	3.35	2.81	2.25	1.88	
750-1938	16-542	4.35	3.62	2.89	2.42	
750-2048	20-542	5.30	4.41	3.54	2.96	



BLOCKS

BARRIER-TYPE TERMINALS

Barrier terminals offer high voltage ratings and protection against shorts due to frayed wires. Dimensions for each Series are shown in drawings at left.

BAKELITE BARRIER BLOCKS

Series 150. Nickel-plated brass screws. Fit 50-A solder lugs—#6 stranded wire. $10\text{-}32x\%_6''$ term. on $1\%_6''$ ctrs. $34x11\%_6''$. 50 A, 1700/2600 V RMS.* Wt. 6 oz.

~					011		
	Stock	Mfr's		EA	CH		
	No.	Туре	1-9	10-24	25-49	50-Up	
	750-1309	2-150	1.02	.90	.73	.62	
	750-1374	3-150	1.37	1.27	1.03	.85	
	750-1419	4-150	1.80	1.64	1.31	1.11	
	750-1464	5-150	2.22	2.01	1.60	1.33	
	750-1509	6-150	2.57	2.37	1.91	1.59	
	750-1599	8-150	3.40	3.13	2.50	2.09	
	750-1684	10-150	4.57	3.87	3.09	2.58	

^{*}Higher Rating Measured With Marker Strip.

FANNING STRIPS

Laminated $\frac{4}{32}$ " bakelite strips; hole in either end for fastening cable with clamp or twine. Left hand mtg. .032" cadmiumplated brass term. Prefix in Mfr's Type No. indicates no. of terminals. 2 oz.



750-1563 7-160L .82 .73 .59 .48 750-1608 8-160L 1.02 .80 .64 .53	le.	2" wid	" ctrs. 1/2	m. on 3/8	rrier ter	eries 140 ba	160L. Fit Se
750-1608 8-160L 1.02 .80 .64 .53		.43	.51	.64	.75	6-160L	750-1519
		.48	.59	.73	.82	7-160L	750-1563
		.53	.64	.80	1.02	8-160L	750-1608
750-1692 10-160L 1.17 1.01 .82 .69	,	.69	.82	1.01	1.17	10-160L	750-1692
750-1771 12-160L 1.47 1.25 .99 .84		.84	.99	1.25	1.47	12-160L	750-1771

161L. Fit Se	ries 141 ba	rrier ten	m. on 7/16	" ctrs. 5	's" wide.
750-1612	8-161L	1.00	.84	.68	.55
750-1696	10-161L	1.22	.1.03	.84	.70
750-1775	12-161L	1.52	1.29	1.02	.87

MARKER STRIPS

Used for labeling terminal positions on barrier strips. Also act as insulators. \(\frac{1}{2}\) at black fiber. Mounting holes match those in corresponding barrier strips. First figure in Mfr's Type no. indicates no. of contacts; last 3 figures indicates barrier series. Strips are numbered sequentially from 1 with white no. 1 oz.



750-0250	MS 2-140	.15	.13	.10	.09
750-0260	MS 3-140	.15	.13	.10	.09
750-0270	MS 4-140	.15	.13	.10	.09
750-0280	MS 5-140	.15	.13	.10	.09
750-0290	MS 6-140	.15	.13	.10	.09
750-0300	MS 7-140	.17	.15	.12	.10
750-0309	MS 8-140	.17	.15	.12	.10
750-0318	MS 9-140	.17	.15	.12	.10
750-0327	MS10-140	.20	.17	.13	.11
750-0340	MS12-140	.20	.17	.13	.11
750-0351	MS14-140	.22	.19	.15	.13
750-0357	MS15-140	.22	.19	.15	.13
750-0363	MS16-140	.25	.21	.17	.14
750-0375	MS18-140	.25	.21	.17	.14
750-0384	MS20-140	.27	,23	.19	.16
750-0388	MS21-140	.27	.23	.19	.16
750-0388	MS 2-141	.15	.13	.10	.09
	MS 3-141	.15	.13	.10	.09
750-0262		.15	.13	.10	.09
750-0271		.13			
750-0282	MS 5-141	.17	.15	.12	.10
750-0292	MS 6-141	.17	.15	.12	.10
750-0311	MS 8-141	.20	.17	.13	.11
750-0328	MS10-141	.20	.17	.13	.11
750-0342	MS12-141	.22	.19	15	.13
750-0353	MS14-141	.25	.21	.17	.14
750-0359	MS15-141	.27	.23	.19	.16
750-0365	MS16-141	.27	.23	.19	.16
750-0386	MS20-141	.32	.27	.22	.18
750-0364	MS 3-142	.15	.13	.10	.09
750-0264	MS 4-142	.17	.15	.12	.10
					_
750-0294	MS 6-142	.17	.15	.12	.10
750-0313	MS 8-142	.20	.17	.13	.11
750-0344	MS12-142	.27	.23	.19	.16
750-0367	MS16-142	.35	.29	.23	.20



ADAPTER SOLDER TERMINALS

Types 34W and W for top-side; Y for underside. 141-J- 95B jumpers for con. be-tween barrier block term. Tinned brass. 1 oz.

			EACH			
Stock No.	Mfr's Type	For Series	1- 9	10- 24	25- 49	50- Up
750-0809 750-0810	3/4 W-140 3/4 W-141	140 141	.15 .15	.14	.13	.12
750-0810	Y-140	140	.17	.16	.14	.13
750-0807	Y-141	141	.17	.16	.14	.13
750-0808 750-1249	Y-142 141-J	142 140, 141	.17	.16	.14	.13
750-1240	95B	142	.27	.24	.18	.15

Multi-Circuit Ribbon Connectors

BLUE RIBBON CONNECTORS

Self-Cleaning Contacts

Matching Positive Polarization

• For Heavy-Duty Applications

For multi-circuit connection, switching and re-routing. Gold-plated spring contacts. Low insertion and removal forces. Diallyl phthalate dielectric meets government specs. Stainless steel mounting

plates. *End cable outlet; †side cable outlet. S in Type No. indicates socket contacts; P, plug. For wire up to #16. Rated 5 amps @ 750 VDC. Av. shpg. wt. 4 oz.

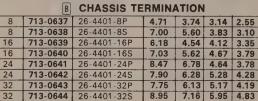
CABLE OR CHASSIS TERMINATION CONNECTORS





A CABLE TERMINATION

Con-	Stock	Mfr's	EACH			
tacts	No.	Туре	1-4	5-9	10-49	50-Up
8	713-0629	26-4301-85°	9.51	7.60	6.33	5.13
	713-0647	26-4501-85†	10.67	9.54	5.85	4.76
8 8	713-0628	26-4301-8P*	9.50	7.60	5.20	4.22
	713-0646	26-4501-8P*	7.82	6.26	5.20	4.22
. 16	713-0631	26-4301-165°	10.57	8.46	7.05	5.72
16	713-0649	26-4501-16S†	12.85	10.28	7.05	5.72
16	713-0630	26-4301-16P*	11.93	9.54	7.93	6.31
16	713-0648	26-4501-16P†	11.92	9.54	6.53	5.31
24	713-0633	26-4301-245°	12.87	9.79	8.24	7.54
24	713-0651	26-4501-245†	14.52	11.62	7.97	6.47
24	713-0632	26-4301-24P*	13.35	10.68	8.88	7.22
24	713-0650	26-4501-24P†	11.72	8.78	7.97	6.47
32	713-0635	26-4301-325°	13.38	10.59	8.91	7.24
32	713-0653	26-4501-325†	13.19	10.45	8.80	7.13
32	713-0634	26-4301-32P°	12.21	9.76	8.15	6.60
32	713-0652	26-4501-32P†	12.21	9.76	8.15	6.60
		CULA COLO TE	DAGINI	-		



SERIES 26 BARRIER POLARIZED CONNECTORS—KEYED SHELLS

Con-	Stock	Mfr's	EACH			
tacts	No.	Type	1-4	5-9	10-49	50-Up
8 16 24 32	713-0614 713-0615 713-0616 713-0617	26-4101-8P 26-4101-16P 26-4101-24P 26-4101-32P	3.02 4.60 5.29 6.07	2.42 3.68 4.22 4.86	2.03 3.06 3.52 4.04	1.65 2.47 2.87 3.28



Chassis-to-Chassis

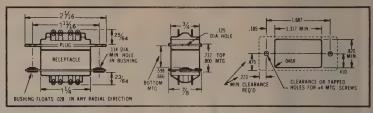
Cable-to-Chassis

4300

Cable-to-Cable

	1710 0017	20-4101-321	0.07	7.00	7.04	3.20			
	FEMALE								
8 16 24 32	713-0623 713-0624 713-0625 713-0626	26-4201-8S 26-4201-16S 26-4201-24S 26-4201-32S	4.25 5.78 5.70 8.05	3.40 4.61 4.56 6.44	2.33 3.18 3.65 4.41	1.90 2.57 3.08 3.58			

SERIES 26 BARRIER POLARIZED CONNECTORS



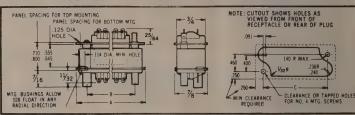
MALE Mfr's Type Con-tacts

EACH 5-9 10-49 50-Up 713-0603 713-0610 713-0611 713-0612

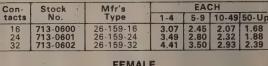


8 8 16 24 32	713-0619 713-0620	26-4200-8S 26-4200-16S		2.00 2.94 3.46	1.76 1.69 2.45 2.90 3.46	1.37 1.98 2.35		

SERIES 26 PIN-POLARIZED CONNECTORS







MALE

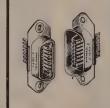


		FEWAL	F**		
16 24 32	713-0605 713-0606 713-0607	26-190-16 26-190-24 26-190-32	3.95 4.71 5.56	3.19	2.55

SERIES 57 MICRO RIBBON® CONNECTORS

RACK AND PANEL CONNECTORS

Especially Designed for Use in Miniaturized Space Age Projects



These extremely small connectors provide increased reliability in miniaturized programs particularly in airborne electronics and computer projects. Permit routing a great many circuits through a few con-nectors. Self-cleaning for long life. Preci-sion molded Diallyl Phthalate inserts. Gold plated contacts rated 5 amps at 700 VDC. High impact strength. Float bushings allow .020". Contact tails have eyelets for soldering. Clear iridite-finished brass shells. Wire up to #22. Av. shpg.

CHASSIS-TO-CHASSIS CONNECTORS

Stock	Mfr's	Description	EACH		
No.	Туре		1-9	10-49	50-Up
713-1700 713-1711 713-1702 713-1713	57-10140 57-20140 57-10240 57-20240	14-Contact Plug 14-Contact Socket 24-Contact Plug 24-Contact Socket	3.30 3.38 4.36 3.73	2.64 2.70 3.48 2.98	1.86 1.89 2.37 1.99
713-1704 713-1715 713-1706 713-1717	57-10360 57-20360 57-10500 57-20500	36-Contact Plug 36-Contact Socket 50-Contact Plug 50-Contact Socket	5.01 5.15 5.40 5.50	4.02 4.12 4.32 4.40	2.71 2.79 2.94 2.98



CABLE-TO-CHASSIS LATCHING CONNECTORS

Sturdy spring-type latches on the receptacles are guided and held by cut-outs in the plug flanges. Cadmium-plated brass shells; clear chromate finish. Wt ... 2 oz.

Stock	Mfr's	Description	EACH		1
No.	Type		1-9	10-49	50-Up
713-1722	57-30140	14-Contact Plug	4.66	3.72	2.80
713-1726	57-40140	14-Contact Socket	3.05	2.44	1.85
713-1723	57-30240	24-Contact Plug	5.04	4.04	2.74
713-1727	57-40240	24-Contact Socket	3.65	2.92	2.19
713-1724	57-30360	36-Contact Plug	6.27	5.02	3.75
713-1728	57-40360	36-Contact Socket	3.92	3.14	2.35
713-1725	57-30500	50-Contact Plug	6.84	5.48	4.13
713-1729	57-40500	50-Contact Socket	5.12	4.10	3.07

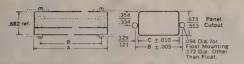


CABLE-TO-CABLE CONNECTORS

cable entry at top of shell with strain re-lief clamp. Right-angle hoods with cable clamps and dust caps. Mate with 50-contact units above. Av. wt. 2 oz

Rack, Panel and Subminiature Connectors

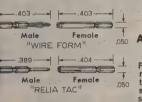




SERIES 220 "MICRO-RAC" CONNECTORS

52 contacts in smallest possible space. Float mounting; spring-loaded alignment posts: Polarized mono-block construction; contact identification numbers molded in. Size, 1.888" long x.677" wide; 1.492" mounting centers; 1.250" long cutout. Less contacts, below. Av. shpg. wt. 1½ oz.

Stock No.	Mfr's. Type	Description	1- 9	10- 49	50- 99	100- Up
713-5807	220-1 N052	Plug	3.38	2.70	1.55	1.35



INDIVIDUAL "WIRE-FORM" AND "RELIA-TAC" CONTACTS

Series 220-223; rated 3 amps. Both types take 22, 24, 26 solid wire; 24, 26 stranded wire. Relia-

Tac also takes 28 solid wire. Wire-Form male, gold-clad copper alloy wire members in copper sleeves; both male and female electroless gold plated over copper; size, 403 x .050". Relia-Tac gold-over-nickel on copper alloy body; male, .389 x .050"; female, .404 x .050". Guide pins will fit either type. Note: Relia-Tac does not mate with Wire-Form. Av. shp. wt. per pkg. 1 oz. Sold in packages of 100.

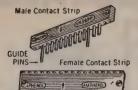
Stock	Mfr's.		PRICE PER PKG. OF 100				
No.	Туре	Description	1-9	10-24	25-49	50-Up	
713-5802	220-S01 220-P02	Wire-Form Male Wire-Form Fem. Relia-Tac Male Relia-Tac Fem	6.00 10.90	3.60 7.84	3.27	2.73 5.12	

Type 221-535 Universal Guide Pins. 713-5853. 1-9......Each .25 10-Up......Each .20

"WIRE-FORM" AND "RELIA-TAC" **CONTACT TOOLS**

Hand crimping tool, adjustable 4-indent miniature to MIL-T-22520. Requires contact locator bushing for specific contact used. Tool handle requires insertion bit or cor-rect removal bit to accommodate desired contact. See Table below. Av. shpg. wt. 12 oz.

Stock Mfr's			For	EACH		
No.	Type	Description	Contact	1-4	5-Up	
713-8105 713-8113	357-100 357-300-1	Hand Crimp T1 Contact Locator	220-S01/	155.64		
		` .	S02/P01	30.30	22.67	
713-8005 713-8017 713-8020 713-8021	356-400-14	Tool Hdle. Only Insertion Bit Removal Bit Removal Bit	ALL 220-S02 220-P02	7.98 13.49 12.26 11.66	6.38 10.80 9.82 9.34	





221 MICRO-MINIATURE STRIP CONNECTORS

Use full length as is, or cut to specific length. Two or more strips can be stacked or epoxied together for multi-row connector. When stacked, contact centers are .100" for both connectors. Use guide pins at least every 3" for mating alignment and keying. Guide pins replace both pin and socket contact. Supplied less contacts and guide pins; listed at left. Spacing .100" except *.075". Av. wt. 1 oz.

					EA	CH	
Stock	Mfr's.	Con-	Des-	1-	10-	50-	100-
No.	Type	tacts	cription	9	49	99	Up
713-5860	221-1560	60	6" Plug	1.45	.90	.61	.58
713-5861	221-1660	60	6" Recept.	1.20	.74	.51	.48
713-5862	221-2553	53°	4" Plug	1.25	.90	.53	.50
713-5864	221-2653	53°	4" Recept.	1.09	.88	.47	.44





RACK AND PANEL SERIES 223 "TINY TIM"

For circuit modules, potted-in or surface mtg.; micro-miniature cable-to-cable use. Meet MIL-C-8384B. Con-tact spacing, .100" ctrs. Screw mtg. Less contacts, left.

			Mtg. E	EACH				
Stock	Mfr's.	Con-	Descrip-		1-	10-	50-	100-
No.	Type	tacts	tion		9	49	99	Up
713-5950	223-1105	5	Plug	.593	1.12	.76	.45	.38
713-5955	223-1205	5	Recept.	.593	.90	.72	.41	.36
713-5951	223-1109	9	Plug	.793	.96	.56	.38	.28
713-5956	223-1209	9	Recept.	.793	1.84	.64	.41	.32
713-5952	223-1117	17	Plug	1.193	1.14	.96	.57	.48
713-5957	223-1217	17	Recept.	1.193	1.07	.86	.53	.43



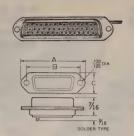




222 "MIGHTY MITE" CIRCULAR

Reliable micro-miniature connectors for cable-to-cable or cable-to-chassis use. .085" ctrs. Five keys, contact identification numbers molded into polycarbonate resin dielectric. 19-contact size, .621" dia. x 2.618"; 31-contact, .746 x 2.948"; 61-contact, .966 x 3.530". Less contact. tacts. 11/2 oz.

			EACH				
Stock	Mfr's.	Con-	Descrip-	1-	10-	50-	100-
No.	Type	tacts	tion	9	49	99	Up
713-5901	222-11N19	19 F	Plug	1.83	1.46	.90	.73
713-5904	222-12N19		Receptacle	1.47	1.18	.73	.59
713-5920	222-518		Cable Clamp	3.79	3.04	2.32	1.52
713-5902	222-11N31	31 1	Plug	1.80	1.24	.72	.62
713-5906	222-12N31		Receptacle	1.47	1.18	.73	.59
713-5921	222-519		Cable Clamp	3.27	2.62	1.61	1.31
713-5908	222-11N61	61 F	lug	1.96	1.56	.97	.78
713-5907	222-12N61		leceptacle	1.56	1.24	.77	.62
713-5922	222-520		lable Clamp	7.47	5.98	3.70	2.99



MINIATURE CONNECTORS

- Feature Poke-Home Contacts for Fast Installation
- 5-Amp Contacts Gold-over-Silver Plated

Miniature rack and panel connectors with "Poke-Home" contacts for easy and fast installations. All contacts are gold-over-sliver plated. Cadmium-plated steel shells. Current rating: 5 amperes from 0° to +230°F. All necessary tools and equipment for crimping and insertion of contacts below. Solder receptacles. †Solder plugs. ‡Cable clamp accessories. Average shipping weight 2 ounces. Be sure to specify manufacturer's type number when ordering.

DIMENSIONS

Connector Size	A Max.	В	C Max.
9	1.239	.984	.515
15	1.567	1.312	.515
25	2.114	1.852	.515
37	2.754	2.500	.515
50	2.661	2.406	.626

			EACH					
Stock	Mfr's	Con-	1-	10-	50-	100-		
No.	Type	tacts	9	49	99	Up		
713-0214	17-10090°	9	2.59	2.08	1.41	1.04		
713-0218	17-10150°	15	3.68	2.94	2.01	1.47		
713-0221	17-10250°	25	5.45	4.36	2.98	2.18		
713-0224	17-10370°	37	7.66	6.12	4.21	3.06		
713-0227	17-10500°	50	9.92	7.94	5.60	3.97		
713-0230	17-20090†	9	1.88	1.50	1.02	.75		
713-0232	17-20150†	15	2.59	2.08	1.41	1.04		
713-0234	17-20250†	25	3.54	2.84	1.95	1.42		
713-0236	17-20370†	37	7.35	5.88	3.00	2.94		
713-0238	17-20500†	50	9.37	7.50	4.16	3.43		
713-0202 713-0204 713-0206 713-0208 713-0210	17-310-01‡ 17-311-01‡ 17-312-01‡ 17-313-01‡ 17-314-01‡	9 15 25 37 50	1.56 2.42 1.69 2.62 1.78	1.24 1.94 1.36 2.10 1.42	.83 .85 .89 .94	.74 .77 .81 .84 .86		

"POKE-HOME" CONNECTOR TOOLS

All tools necessary for crimping and insertion of "Poke-Home" connectors. All are top-quality connector tools designed for long life, steady service and reliability. Hand crimping tool is adjustable 4-indent miniature to MIL-T-22520 specifications, needs contact locator bushing. Tool handle requires insertion bit for desired contact. Average shipping weight is 6 ounces. When ordering, be sure to specify manufacturer's type number.

Stoc	k	Mfr's	A Jan P. C.	For	EA	EACH	
No		Type	Description	Contact	1-4	5-Up	
713-8	105	357-100	Hand Crimp Tool		155.64	103.55	
713-8	005	356-200	Tool Handle Only		7.98	6.38	





Pin/socket insert, gold-plated copper alloy con-tacts, cadmium-plated steel shells. Take #20 stranded wire, rated 5 amps. Meets MIL-M-14F Type SDG. Ins. res.: over 5000 megs, per MIL-STD-202A, Method 302. *Digits show No. of contacts; †floating

ORIGINAL "D"							
			EACH				
Stock No.	*Mfr's Type	Flange Size In.	1-	10- 49	50- 99	100- Up	
750-0120 750-0121 750-0020 750-0021 750-0050	DE-9P DE-9S DA-15P DA-15S DB-25P	113/64X31/64 113/64X31/64 117/32X31/64 117/32X31/64 25/64X31/64	1.93 2.73 2.69 4.02 3.98	1.25 1.82 1.79 2.69 2.72	1.07 1.52 1.50 2.24 2.24	.97 1.32 1.30 1.75 1.75	
750-0051 750-0054 750-0055 750-0082 750-0083	DB-25S DBF-25P DBF-25S DC-37P DC-37S	25/64X31/64 25/64X31/64 25/64X31/64 25/64X31/64 223/32X31/64 223/32X31/64	6.29 5.14 7.46 5.40 8.93	4.11 3.39 4.91 3.58 5.87	3.42 2.85 4.09 2.97 4.90	3.00 2.45 3.50 2.50 4.40	

SERIES "D" SUBMINIATURE CONNECTORS L+.015 Connector

mtg; suffix "P," male conn.; "S," female. Original "D": 2-piece Nylon inserts. Mark I Golden "D": monoblock with diallyl phthalate glass fiber insulation. Av. wt. 2 oz.

ORIGINAL "D" (Cont'd)									
EACH									
Stock Mfr's No. Type		Flange Size In.			50- 99				
750-0100 DD-50P 2%x ³ % ₄ 6.81 4.70 3.90 3. 750-0101 DD-50S 2%x ⁸ % ₄ 11.75 8.98 6.47 5.									
MARK I COLDEN "D"									

	/50-0101	DD-309	278X 764	11.73	0.30	0.47	3.10		
MARK I GOLDEN "D"									
	750-0126 750-0127 750-0033 750-0034 750-0068 750-0069	DEM-9S DAM-15P DAM-15S DBM-25P	113/64X31/64 113/64X31/64 117/32X31/64 117/32X31/64 25/64X31/64 25/64X31/64	5.06 5.50	3.43 4.40 5.12 5.25	1.97 2.88 2.82 4.26 4.38 6.63	2.33 2.28 3.98 3.48		

Mfr:s	Lock	Di	m., Inch	es
Туре	Screws	L	W	Н
DA-19678-1	2	1.531	.500	.640
DB-19678-2	2	2.078	.500	.640
DC-19678-3	3	2.718	,500	,640
DD-19678-4	3	2.625	.609	.703

JUNCTION SHELLS

			EA	CH		
Stock No.	Mfr's Type	1- 9	10- 49	50- 99	100- Up	
	DA-19678-1 DB-19678-2	1.60	1.05 1.23	.87 1.04	.78	
750-0098		2.25	1.47	1.23	1.03	

Low-carbon steel clamp with weather resistant cadmium plating. Ex-ceeds 50-hour salt spray test; meet MIL-STD-202A specs. 3 oz.

SCREW LOCK ASSEMBLIES

		For		EA	CH	
Stock No.	Mfr's Type	Shell Size	1-9	10- 49	50- 99	100- Up
	*D20418-2 †D20419-0		.65 .42	.41 .25	.36	
750-0017	†D20420-0		60	39	31	28

For junction shells above. Same corrosionresistant construction.
*Female; †Male. Av.
shpg. wt. 1 oz.

50-PAIR CABLE ADAPTERS

THREE-WAY BRIDGING ADAPTER FOR KEY TELE-PHONES. Six interconnected 57 Series Micro-Ribbon connecting devices arranged in groups of two in a plastic housing with removable cover. Used to interconnect and extend key telephone systems requiring 50-pair cable. Common contacts in connecting devices 1, 3 and 5 are interwired as are common contacts in connecting devices 2, 4 and 6. Size: outer case, 7x53/4x23/4". Gray or Beige.

Stock No.	Mfr's	Connector/		EACH	
	Type†	Arrangement‡	1-9	10-24	25-Up
714-0108 714-0110	283-65-01 283-65-03		44.13 44.13		30.00 30.00

CONFIGURATIONS. Type 283-65-01: Mates with one incoming 50-pair connector-ended cable from the main terminal box or another bridging adapter and extends the circuit by mating with two plug-ended cables, Type 283-65-03: interconnects three 50-pair connector-ended cables, one incoming from the main terminal box or another bridging adapter and two outgoing cables to other bridging adapters.

1296 1.386

75-PAIR CABLE ADAPTERS

THREE-WAY BRIDGING ADAPTER FOR 18-BUTTON CALL DIRECTORTM OR CALL COMMANDERTM TYPE PHONES. Nine 57 Series Micro-Ribbon connecting devices interwired to connect and extend circuitry for the popular 18-button telephones. Rugged plastic housing has an easily removed cover and three cable access holes. Every third connector or plug in the adapter is interconnected (connector 1 is wired to plug 4 and connector 7; connector 2 to plug 5 and connector 8; connector 3 to plug 6 and connector 9). Size: 6,700x5.75x2.718".

Stock	Mfr's	Connector/		EACH	
No.	Type†	Arrangement‡	1-9	10-24	25-Up
714-0112	283-53	CCC-PPP-CCC	54.12	40.52	34.86

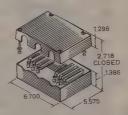
CONFIGURATION: Type 283-53: Mates with one 3-finger (75-pair) connector-ended cable incoming from the main terminal box or another bridging adapter and extends circuit to two 18-button Call Directors by accepting 3-finger plug-ended cable from each.

100-PAIR CABLE ADAPTERS

TOU-PAIN CABLE ADAPTERS
FOUR-WAY BRIDGING ADAPTER FOR 30-BUTTON KEY
TELEPHONES. A rugged adapter containing twenty 57
Series Micro-Ribbon connecting devices. Every fifth connecting device is interwired to form 4 completely interconnected sets. Access holes for 5-fingered cables are
provided on the sides of the case. This adapter is used
with 30-Button Call Director or all Commander type key
telephones.

Stock No.	Mfr's	Connector/	EACH			
	Туре	Arrangement	1-9	10-24	25-Up	
14-4251	283-95-1	Connector-Plug	104.84	76.04	69.80	

CONFIGURATION: Interconnects one five-finger (100 pair) connector-ended cable incoming from the main terminal box or another bridging adapter, two five-finger plug-ended cables, each from a 30-button Call Director and a five-finger (100 pair) connector-ended cable outgoing to another bridging adapter, extending the circuit.



CROSS-OVER ADAPTERS

CHOSS-OVEH ADAPTERS

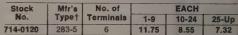
FOR INTER-CONNECTING KEY TELEPHONES TO CABLES
WITH DIFFERENT "ODD COUNT—EVEN COUNT" WIRING PATTERNS. Crossover adapters allow greater flexibillity for equipment usage by permitting use of Call
Director or Call Commander key telephones of either old
or new wiring pattern (odd count or even count) with
either type of cable. 6 connecting devices for 18-button
key phones. 57 Series Micro-Ribbon connecting devices
interwired in a special manner to convert one wiring
pattern to another.

Stock No.	Use		d With		EACH	
	Mfr's Type		Dable Wiring Pattern	1-9	10-24	25-Up
14-4252 14-4253	283-62-01 283-62-02	Old New	New	44.13	33.04	30.00

CONFIGURATIONS: Type 283-62-01: Interconnects an 18-button phone with old wiring pattern to a three fingered (75 pair) cable having the new wiring pattern. Type 283-62-02: Interconnects an 18-button phone with new wiring pattern to a three fingered (75 pair) cable having the old wiring pattern.

TERMINAL STRIP ADAPTER





COLON CODING FOR TERMINAL STRIP ADAPTER								
Terminal		Coding	Terminal			Terminal		Coding
Contacts	Ringer	Tipside	Contacts	Ringer	Tipside	Contacts	Ringer	Tipside
50	Violet	Slate	49	Violet	Brown	48	Violet	Green
25	Slate	Violet	24	Brown	Violet	23	Green	Violet

TO PBX, PABX OR CENTRAL OFFICE LINES KEY TELEPHONE RELAY INTERMEDIATE TERMINAL 11100000 PHONE WITH CLD WIRING PATTERN 283-109-01 ISLAND ADAPTER 6 BUTTON KEY PHONE

KEY TELEPHONE SYSTEM INTERCONNECTIONS

The interconnection products on this page permit fast, easy and economical linking and extensions of telephone circuitry. They offer practically unlimited versatility. These systems, using factory terminated plugs and connectors, substantially reduce the time required to connect complicated telephone installations. Their reusability means that you can add to or rearrange your present system at will. Bridging adapters and other interconnection devices use highly reliable 57 Series Micro-Ribbon plugs and connectors. Bridging adapters are in durable plastic cases with removable covers—choice of two colors, compatible with housings of related equipment. Add suffix-1 to Mfr's Type No. for gray, -2 for Beige. C=connector (receptacle or female device). P=plug.

TAC TEST APPARATUS CONNECTOR

Pocket-size adapter provides fast, safe access to any pair of "quick-clip" contacts in a "66 type" connecting block, Exposed "ears" are widely spread to reduce the possibility of shorts, Contacts are gripped firmly to prevent disconnection. Black molded plastic body. Size, 1.375" long x 1.437" wide x .365" high. Base dimension at contact. 437 x .365" with .098" app between contacts.

at contact,	. TOF X 10F.	***************************************	o gap i	,01110011	oomaoto.
Stock	Mfr's		EA	CH	
No.	Type	1-9	10-24	25-99	100-Up
714-0001	284-1	.52	.47	.37	.29

GOOF PLUGS

Interconnects two plug-ended or two connector-ended cables. Feed-through adapter consists of two 57 Series Micro-Ribbon 50-contact connectors or plugs arranged back-to-back in a plastic housing with all common con-

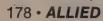
Stock	Mfr's	Connector/	EACH			
No.	Type	Plug Arrangement‡	1- 9	10- 24	25- Up	
		Connector-Connector	11.35	8.50	7.65	
714-0116	283-114-02	Connector-Plug	11.35	8.50	7.65	
	283-114-03		11.35	8.50	7.65	
	283-114-04		11.35			
714-0121	283-114-05	Connector-Connector	11.35	8.50	7.65	

25-PAIR CABLE ADAPTERS

THREE-WAY BRIDGING ADAPTERS FOR 6-BUTTON TELEPHONES. Three interwired 57 Series Micro-Ribbon connecting devices in a durable plastic housing. Used to connect one or more 6-button key tele-devices to 25-pair cables. All common contacts are factory interwired (contact 1 in the first connecting device is wired to contact 1 in both other devices, contact 2 to contact 2 in both other devices, etc. Size: outer case: 4½x2½x2½".

	Mfr's	Connector/		EACH	
	Type†	Arrangement‡	1-9	10-24	25-Up
714-0102	283-105	C-P-C	14.95	8.41	7.56
714-0104	283-106	P-C-P	14.95	8.41	7.56
714-0106	283-108	P_P_P	14 95	R 41	7 56

CONFIGURATIONS. Type 283-105: Mates with one incoming 25-pair connector-ended cable from main terminal box or another bridging adapter; extends circuit to two 6-button phones by mating with plug-ended cable from each. Type 283-106: Interconnects one incoming 25-pair connector-ended cable from main terminal box, one outgoing plug-ended cable to a 6-button phone, and one outgoing 25-pair connector-ended cable going to another bridging adapter, thereby exteding the circuit. Type 283-108: Interconnects three 25-pair connector-ended cables, one incoming from the main terminal box or another bridging adapter and two outgoing cables to other bridging adapters.



4.250

CONNECTORIZED TERMINATION BLOCKS

TELEPHONE BI-CONNECTOR ASSEMBLY



Series 66. Pre-wired. Terminate in Series 57, 50 contact connectors. Standard telephone wiring. Internal bridging: 2, 6 row blocks replace 3. Each adds 1/2" to block width and mates, plug-to-connector, with next block in series.

Stock No.	Туре 407-	Description	EACH
714-0140	143-575A	Single Male Connector	45.00
714-0141	143-575B	Single Female Connector	45.00
714-0142	143-575C	Dual Connector, Male/Female	65.00
714-0143	143-575D	Dual Connector, Male/Male	65.00
714-0144	143-575E	Dual Connector, Female/Female	65.00

No Misalingment or Bent Pins

Self Cleaning, Low Resistance Contacts

Versatile Interfacing Device

Patch Cords, Terminal Blocks and Running Cables

Fully pre-wired, multicapability telephone accessory interface device. Its numerous applications include interconnection of automatic dialing components, conference callers, answering system devices and traffic controllers. Consists of pre-wired, 50-contact, male and female Series 57 connectors mated back-to-back for interfacing with existing connectorized circuits. Available in solidly encapsulated, PVC molded, medium-duty, normal assembly with a 4 to 20 pair capacity. Polypropylene clam-shell-enclosed assembly. Easy accessibility to the interior of connector. Entrance to the interior of the connector is gained by sliding back a retaining sleeve and lifting the molded encapsulation. Specify outside diameter of cable when ordering.

Stock	Mfr's	EACH				
No.	Туре	1-9	10-24	25-Up		
714-0145	407-143-588	16.87	11.27	9.25		



Clam-shell type permits access to internal wiring for field modifications.

RUNNING CABLES

HUNNING CABLES

Solid, annealed, bare copper wire; insulated with high density heat-stabilized, color-coded, semi-rigid polyvinyl chloride (or equivalent material)—resistant to moisture, weathering, abrasion, corrosion, heat, and environmental cracking. To minimize crosstalk, individual conductors are twisted in color-coded pairs. Twisted pairs of 25 are assembled in layers; 50-pair cable is assembled in units, individually identified by colored binders. Pairs are cabled without fillers into a round core. Nylon ripcord allows stripping of jacket without damage to conductors. Conductor size: #24 AWG. Resistance: 27.5 ohms/1000 ft. max. at 68°F. Insulation resistance: 100 megohms/1000 ft. minimum. Mutual capacitance: 0.17 μF/1000 ft. average at 1 kHz. *One end is raw-ended.



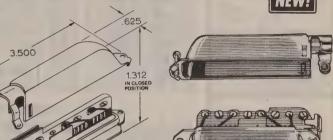
25-PAIR RUNNING CABLE							
Stock	Mfr's	Length,	Terminal*	EACH			
No.	Туре	Faet	16Lmmai.	1-9	10-24	25-Up	
714-0030	407-A25B-SE-10	10	Connector	12.80	10.12	8.54	
714-0031	407-A25B-SE-15	15	Connector	15.05	12.12	10.15	
714-0032	407-A25B-SE-25	25	Connector	16.22	12.40	10.00	
714-0036	407-A25D-SE-25	25	Plug	16.55	13.24	11.06	
714-0033	407-A25B-SE-50	50	Connector	26.50	21.20	17.70	
714-0037	407-A25B-SE-50	50	Plug	26.50	21.20	17.70	
714-0034	407-A25B-SE-100	100	Connector	46.00	36.40	30.73	
714-0038	407-A25D-SE-100	100	Plug	46.00	36.40	30.73	
714-0035	407-A25B-SE-150	150	Connector	66.25	53.00	44.25	
714-0050	407-B25A-DE-5	5	Connector/Plug	15.75	12.60	10.52	
714-0051	407-B25A-DE-10	10	Connector/Plug	17.75	14.20	11.86	
714-0052	407-B25A-DE-15	15	Connector/Plug	19.75	15.80	13.19	
714-0053	407-B25A-DE-25	25	Connector/Plug	23.50	18.80	15.70	

50-PAIR RU	INNING	CABLE
------------	--------	-------

50-PAIR RONKING CABLE							
714-0039	407-A50B-SE-25	25	Connector	34.50	27.60	23.05	
714-0040	407-A50B-SE-50	50	Connector	54.88	43.90	36.66	
714-0041	407-A50B-SE-100	100	Connector	95.50	76.40	63.79	

NON-KEY TELEPHONE ADAPTER





This adapter consists of a Series 57 Micro-Ribbon type plug with a special terminal block providing 8 screw type terminals. It permits connection of single line equipment to 25 pair plug-ended cables. It can be plugged into a bridging adapter or connector-ended 25 pair cable intended for multi-button service when necessary to down-grade to single line station. It eliminates cutting off the connector and manually connecting the desired circuits. Use this adapter to provide single button or non-button spade tip cord set services quickly and easily. Interchangeable with 153A Type plug. Dimensions: 3½L x .625W x 1.132" H. Same size as standard Series 57 cable to cable type plug.

"WRAPID" SOLDERLESS TERMINAL BLOCKS

Use any wrapping tool to make solderless wrapped wire connections. Even inexperienced operators can make one connection each 5 seconds. Block and fanning strip are moided of high-impact glass-filled Nylon. Have brass terminals. Letters and numbers identify terminals. Cadmium-chromate plated mtg. studs. 4 oz.



	Mo.	No. of	mi- Dim	EACH			
	Mfr's Type	Termi- nals		1-	10- 24	25- 49	50- Up
719-1604 719-1606 719-1610	PJ-604 PJ-606 PJ-610	40 60 100	1.75" 2.25" 3.25"	5.90 7.20 9.90	3.54 4.32 5.94	3.60	2.36 2.88 3.96

SOLDER-TYPE TERMINAL BLOCKS

Rugged units for design and construction use in telephone circuits, computers, recording studies, broadcast stations or wherever many circuits are in operation. Each unit has a one-piece moided black phenolic base; individual terminal separators are also of moided black phenolic. Polished phenolic surface surrounding terminals assure easy removal of solder flash. Terminals are 0.40" thick plated brass. 20 terminals per row. Terminal rows are graduated in length for ease of wiring, and are identified by numbering imprinted along the top row. Base, 61/643". Av. shpg. wt. 1½ lbs.

Stock	Mfr's	No.	No. of	Block	EA	СН
No.	Type	Rows	Terms:	Height	1-9	10-Up
719-1103 719-1104 719-1105 719-1106	PJ-103 PJ-104 PJ-105 PJ-106	3 4 5 6	60 80 100 120	2½32"\$ 2½5%18" 3½32" 3½"	12.00 14.00 16.00 18.00	7.80 9.10 10.40 11.70

PATCH CORDS

Shielded cables with plastic jackets, molded-on plugs, brass plug cor two 2-c lon 3-c

Stock Mfr's		Desc.	EACH			
No.	Type	Desc.	1-9	10-24	25-Up	
719-0073 719-0075 719-0079 719-0081 719-0083	PJ-704 PJ-706 PJ-712 PJ-714 PJ-716	24" long, 2-con. 36" long, 2-con. 12" long, 3-con. 24" long, 3-con. 36" long, 3-con.	8.00 8.20 8.75 9.50 9.62	6.40 6.55 7.00 7.66 7.70	4.16 4.26 4.55 4.94 5.01	

444444444444444444444444

STD. JACK PANELS

For use in TV, radio, recording studios, communication centers. Steel-reinforced molded phenolic panels fit 19" rack. Accepts standard double plugs; 56" spacing between rows. 3½ lbs.

Stock No.	Mfr's Type		No. Jacks		Panel Ht.	1-9 10-Up
719-1030 719-1390 719-1031 719-1342	PJ-390 PJ-31	Double	52 48	Less jacks PJ-339 Less jacks PJ-318	1¾" 2½" 2½"	19.00 12.35 115.00 74.75 24.00 15.60 83.50 54.28
719-1033 719-1343 719-1036 719-1396	PJ-343 PJ-36	Single	24 24 26 26	Less jacks PJ-318 Less jacks PJ-339	1¾" 1¾" 1¾" 1¾"	22.00 14.30 50.50 32.83 16.50 10.73 62.00 40.30

2-CONDUCTOR SHIELDED PATCH CORDS

Nylon braid jacket, tinsel conductors, thermoplastic insulation.
Molded plug body; brass com-

714-0146. Type 283-73 Adapter.....

om-	and the						
1-41	EACH						
ription	1-24	25-Up					
th D I 1 pluge	18 50	11.10					

Stock	Mitr's	Description		U11
No.	Type	Description	1-24	25-Մբ
719-1011 719-1012 719-1013	PJ-11 PJ-12 PJ-13	1-ft. cord with PJ-1 plugs 2-ft. cord with PJ-1 plugs 3-ft. cord with PJ-1 plugs	21.00	12.60

PATCH CORDS



Nylon braided jackets for excellent abrasion resistance. Tinsel conductors, molded plug body, thermoplastic insulation and brass components. 3 conductor, shielded cord assemblies. Durable, flexible and reliable. *Coneshaped tip prevents momentary shorts between tip and ring contacts. Black nylon jacket.

Stock	tock Mfr's		With	EACH				
No.	Type	(ft.)	Plugs	1-24	25-49	50-Up		
719-2000 719-2001	PJ-72° PJ-74°	2	PJ-2 PJ-2	15.50 16.50	9.30	8.53 9.08		
719-2002 719-2003	PJ-76* PJ-81	6	PJ-2 PJ-051R	17.90	10.75	9.85 7.65		
719-2004	PJ-82	2	PJ-051R	14.50	8.70	7.98		
719-2005 719-2006 719-2007	PJ-83 PJ-84 PJ-172	3 4 2	PJ-051R PJ-051R PJ-7	15.00 15.60 38.00	9.00 9.36 22.80	8.25 8.58 20.90		
719-2008 719-2009	PJ-174 PJ-176	6	PJ-7 PJ-7	40.00 42.00	24.00 25.20	22.00 23.10		

A

Coaxial Connectors

WEATHERPROOF, TARNISH-RESISTANT CONNECTORS

TYPE N COAXIAL CONNECTORS

Medium-size, weatherproof, threaded coupling units may be used in systems up to microwave. SWR is consistently low. Meet MIL specifications. Rated 1500

volts peak. Impedance: 50 ohms except (*) 70 ohms. †Weatherproof and tarnish resistant; plated to take constant handling; resistant to abrasion.

Stock	Military	Mfr's	Description	Fig.	For RG/U	Lgth.,		EA	СН	
No.	No.	Туре	2 10 20	11.8	Cables	in.	1-9	10-24	25-99	100-Up
713-3311	UG-21B/U†	82-61	Plug Shirts	Α	8, 9, 10	1%	2.30	1.84	1.44	1.21
713-3325	UG-21C/U	82-96	Plug	Α	8, 9, 10	11/8	3.60	2.88	1.72	1.56
713-3342	UG-21D/U†	82-202	Plug	Α	8, 9, 10	11/2	3.60	2.88	1.72	1.56
713-3312	UG-22B/U	82-62	Panel Jack	Н	8, 9, 10	113/16	4.75	3.80	2.26	2.13
713-3313	UG-23B/U	82-63	Jack	D	8, 9, 10	1 15/16	2.90	2.32	1.82	1.53
713-3345	UG-23D/U	82-209	Jack	D	8, 9, 10	1%16	3.50	2.80	1.67	1.57
713-3314	UG-27A/U	82-64	Angle Adapter	В		17/18	8.02	6.42	3.82	3.42
713-3327	UG-27B/U	82-98	Angle Adapter	В	*******	113/32	8.70	7.96	4.14	3.98
713-3328	UG-28A/U	82-99	"T" Adapter	J		13/4	9.10	7.28	4.34	4.10
713-3315	UG-29A/U	83-65	Adapter	E.	**********	13/4	4.92	3.94	2.35	2.21
713-3330	UG-29B/U	82-101	Adapter	E	.,	13/4	4.32	3.46	2.06	1.88
713-3316	UG-30/U	82-66	Bulkhead Adapter	G		1%	9.82	7.86	4.68	4.30
713-3340	UG-57B/U	82-100	Adapter	F	· · · · · · · · · · · · · · · · · · ·	119/32	5.42	4.34	2.58	2.30
713-3336	UG-58A/U†	82-97	Panel Receptacle	€	*******	17/64	2.60	2.08	1.24	1.18
713-3318	UG-94A/U	82-84°	Plug	Α	11, 12, 13	1%	5.15	4.12	2.45	2.30
713-3302	UG-107A/U	82-36	"T" Adapter	J	******	2	11.65	9.32	5.55	5.05
713-3331	UG-107B/U	82-102	"T" Adapter	J		13/4	12.25	8.90	5.84	5.32
713-9761	UG-536/U†	34000	Plug	A	58, 141	21/8	4.05	3.24	2.54	2.13
713-9762	UG-536B/U†	34025	Plug.	À	55, 58	1%	2.87	2.30	1.68	1.40
713-9768	UG-603A/U	34525	Plug	Α	59, 62, 71	1%	3.28	2.62	2.05	1.72
713-3378	UG-680/U	82-811	Bulkhd, Recept.	T		137/64	5.50	4.40	2.62	2.50
713-3351	UG-1185/U	82-312	Plug.	Α	8, 9, 87A	11/2	3.95	3.16	1.88	1.74

TYPE HN COAXIAL CONNECTORS

For high voltage applications. Rated 1500 volts peak; 5000 volts rms dielectric. Standing Wave Ratio (SWR),

1.3. Frequency range, 0 to 4 GHz. Impedance, constant 50 ohms.

EACH Mfr's Type For RG/U Cables Lgth. 1-9 10-24 25-99 100-Up No. No. Straight Plug Straight Plug 3.98 3.88 8.35 6.68 3.72 713-3303 UG-59A/U UG-59B/U 82-38 8, 9, 10 2% 2% 6.52 8.15 713-3376 82-804 8, 9, 10 Panel Receptacle UG-560/U 82-805 2.98

TYPE C COAXIAL CONNECTORS

Constant 50-ohm impedance. Peak voltage rating: 1500 volts. Dielectric withstanding voltage: 3000 V

rms. Low Standing Wave Ratio (SWR) up to 10 GHz. Weatherproof.

713-3364 UG-568/U 82-504 Panel Receptach 713-3370 UG-573A/U 82-530 Plug	4	8, 9, 10	1 ³ / ₃₂ 1 ³ 1/ ₆₄	3.68 5.82	2.94 4.66	2.30 2.78	1.93 2.60
--	---	----------	---	--------------	--------------	--------------	--------------

UHF COAXIAL CONNECTORS

Low-cost, general purpose connectors for applications up to 300 MHz, where constant impedance is not necessarily required. Meet government specifications are for use with 2-conductor coaxial cables. †Supplied with tarnish-resistant Astro-Plate® finish.

UHF SMALL SINGLE CONTACT

Stock	Military	Mfr's	Mfr's Description Fig. For RG		For RG/U	Lgth.,	EACH			
No.	No.	Туре		8.	Cables	in.	1-9	10-24	25-99	100-Up
713-3550	UG-111/U†	83-750	Plug	K	59, 62, 71.	1.11/18	1.75	1.40	1.10	.92
713-3547	UG-175/U†	83-185	Reducing Adapter	P	25, 55, 58	1 .	.32	.26	.20	.17
713-3545	UG-176/U†	83-168	Reducing Adapter	P	59, 62, 71	1	.32	.26	.20	.17
713-3556	UG-230/U, 49482	86 -776	Plug 57 55 8	K	55, 59, 62, 71	13/10	2.82	2.26	1.77	1.49
713-3507	UG-363/U, PL-274†	83-1F	Straight Adapter	R	*******	2	3.40	3.52	2.75	2.31
713-3503	UG-646/U, M-359†	83-1AP	Angle Adapter	L		1 1 1/32	3.00	2.40	1.88	1.56
713-3523	M-358, 49119†	83-1T	"T" Adapter	J		1%	4.88	3.90	2.92	2.45
713-3535	M-359A, 49192	83-58	Angle Adapter	L		127/32	3.85	3.08	2.42	2.03
713-3512	PL-258, 49191†	83-1J	Straight Adapter	M	********	11/6	1.70	1.36	1.07	.90
713-3519	PL-259, 49190†	83-1SP	Plug	K	8-13, 63, 65	11/2	1.02	.82	.64	.54
713-3562	PL-259, 49190†	83-822	Plug	K	8, 9	11/2	1.42	1.14	.89	.75
713-3551	PL-259A, 49195†	83-756	Plug	K	8-12	13/10	3.68	2.94	1.75	1.60
713-3521	PL-259A, 49195†	83-1SPN	Plug 1999	K	8-13, 63, 65	1%16	2.50	2.00	1.19	1.13
713-3514	SO-239, 49194†	83-1R	Panel Receptacle	N		11/10	.90	.72	.56	.47
713-3516	SO-239	83-1RTY	Panel Receptacle	N	******		1.55	1.24	.96	.81
713-3558	SO-239A†	83-798	Panel Receptacle	N		11/16	2.30	1.84	1 44	1.21

UHF SMALL TWIN CONTACT

	UG-102/U, PL-284 UG-103/U, SO-264	83-22R	Plug Panel Receptacle Reducing Adapter		59, 62, 71	*****	3.60 2.95 .65	2.88 2.36 .52	1.72 1.41 .31	1.60 1.32 .29
--	--------------------------------------	--------	--	--	------------	-------	---------------------	---------------------	---------------------	---------------------























D

713-3377





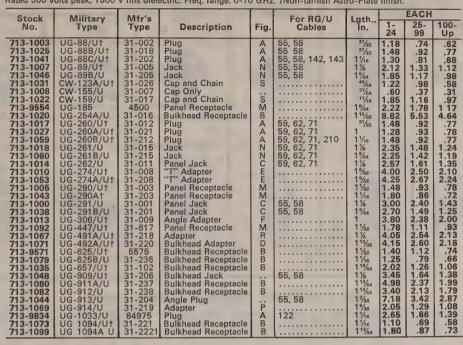




Coaxial Connectors

BNC BAYONET COUPLED, TARNISH-RESISTANT (†) CONNECTORS

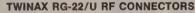
Rated 500 volts peak; 1500 V rms dielectric. Freq. range: 0-10 GHz, †Non-tarnish Astro-Plate finish.



MHV MINIATURE HIGH VOLTAGE CONNECTORS

Single contact types. Feature bayonet lock coupling for quick connect and disconnect. Av. wt. 3 oz.

713-9751 UG-931 U 27000 Panel Receptacle 713-9755 UG-932/U 28000 Straight Plug	58, 59 58, 59	1 1/16 1 1/2	3.25 2.60 3.60 2.88	1.71
--	------------------	-----------------	------------------------	------



95-ohm weatherproof, polarized; to 200 MHz. 2 oz.

Stock	Military No. UG-	Mfr's				CH
No.	No. UG-	Type	Description			25-Up
713-9578	421/U	6275	RG-22/U plug	T	8.80	6.64
713-9576	422/U	6225	Sq. flange recept.	G	8.48	6.78

COAXIAL RF PLUG-INS

Rated 2000 V. Mount in 5/16" dia. hole. 1 oz.

	Military No. UG-			Fig.		CH 25-Up
713-9516 713-9515	1050/U 1051/U	2225 2175	Plug Jack		1.32 1.52	

"BETWEEN SERIES" ADAPTERS

Provide positive connection between RF connectors. Non-constant impedance but minimal resistance.

Stock	Military	Mfr's		Lgth.,		EACH	
No.	No.	Туре	Description	ln.	1-24	25-99	100-Up
713-1095 713-1063 713-1033 713-1065 713-0828	UG-273/Ú UG-394A/U†	31-830 31-216 31-028 31-217 27-28	N plug, BNC jack N plug, BNC jack BNC jack, UHF plug N jack, BNC plug BNC plug, 50-ohm screw-on subminax jack	1 ⁵ / ₁₆ 1 ³ / ₁₆ 1 ³ / ₁₆	4.72 3.95 2.32 4.75 4.85		2.49 1.58 1.22 2.50 1.94

"K-GRIP JR." RF CONNECTORS

Lightweight connectors for fast assembly with hex forming tool and trim jibs. Type TR-4 tarnish resistant finish. BNC Series: bayonet coupling for small-dia. R6/U 50-ohm cables; 1500 V rms. TNC Series: positive lock thread

coupling, low noise level, 50-ohm, 1500 V rms. N Series: positive lock thread coupling, 50-ohm, 2500 V rms. UHF Series: positive lock thread coupling. Jacks not illustrated

Stock	Mfr's	+ 2	For RG/U				EA	СН	
No.	Type	Series	Cable Type	Description	Fig.	1-24	25-49	50-99	100-Up
836-0250	KC39-26	BNC	58, 141	Jack	10.0	3.25	1.56	1.30	1.08
836-0252	KC39-28	BNC	59, 62, 210	Jack		4.60	2.65	2.21	1.84
836-0350	KC59-78	BNC	58, 141	Plug	W	2.20	1.27	1.06	.88
836-0351	KC59-79	BNC	59, 62, 120	Plug	W	2.27	1.31	1.09	.91
836-0366	KC59-139	BNC	55, 58	Plug	A	1.80	1.25	.87	.72
836-0427	KC79-48	BNC		Bkhd. Recept.	В	1.87	1.31	1.09	.75
836-0495	KC99-30	BNC		Adapter	P	2.17	1.52	1.27	.87
836-0496	KC99-31	BNC		T-Adapter	E	4.97	3.47	2.89	1.99
836-0115	KA59-44	TNC	58, 141	Plug	J	3.90	2.24	1.87	1.56
836-0950	KN59-67	- N	8, 11, 213	Plug	- X	3.65	2.10	1.75	1.46
836-1224	KU59-07	UHF	58, 141	Plug	K	2.02	1.16	.97	.81
836-1225	KU59-08	UHF	59, 62, 210	Plug	K_	2.02	1.16	.97	.81

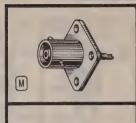
FULL CRIMPED PL-259 TYPE CONNECTORS CUT ASSEMBLY TIME

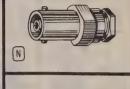
Lightweight, with positive lock-thread coupling. Hex forming tool gives strong connections.

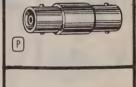
836-1254	KU59-46	UHF	58, 58A, 58C/U	Plug	Y	2.02	1.16	.97	.81
836-1252	KU59-44	UHF	59, 59A, 59B, 62, 62A/U	Plug	Y	2.02	1.16	.97	.81

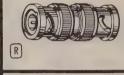
"K-GRIP" JR. TRIM JIGS, CRIMPING TOOL AND DIE

For connect	tor type KU-59-46 (old type PL-259/UG-175). Die takes RG-55, 56, 141, 142, 223/U cable.	
836-1190	Type KTJ-12 Jacket Trim Jig. (Fig. L)	18.37
836-1180	Type KTH-1001 Crimp Die	66.80
836-1181	Type KTH-2002 Die Set StandardEach	58.45
836-1179	Type KTH-100 Universal Crimp Tool	116.90





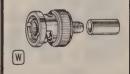


















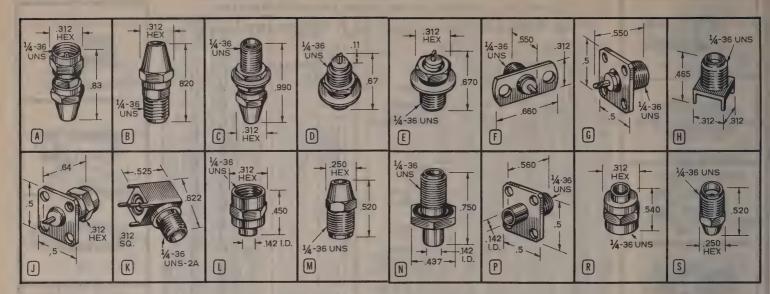
A

D

6

K

Coaxial Connectors



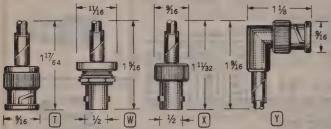
JCM MINIATURE COAXIAL CONNECTORS

Miniature (3mm) connectors compatible with MIL-C-39012B SMA connectors. Flexible cable types for DC to 3 GHz; semi-rigid types to 6 GHz. Cable clamp plugs and jacks easily assembled from 5 parts. Panel, bulkhead, PC receptacles preassembled. *Flexible cable types. †Semi-rigid cable types.

Cable groups: I—for RG178/U, 178A/U, 178B/U, 196/U, 196A/U. II—RG174/U, 188/U, 188A/U, 316/U. III—RG55/U, 55A/U, 55B/U, 58/U, 58A/U, 58B/U, 58C/U, 141/U, 141A/U, 142/U, 142A/U, 142B/U, 223/U.

			Cable			EA	CH	
Stock No.	Mfr's Type	Fig.	Group or O.D.	Description	1-	25- 49	50- 99	100- Up
828-2201 828-2221 828-2261 828-2211 828-2231 828-2271	142-0201-001° 142-0221-001° 142-0261-001° 142-0211-001° 142-0231-001° 142-0271-001°	A A B B	1 81 111 1 11 111	Plug, Clamp Type Plug, Clamp Type Plug, Clamp Type Jack, Clamp Type Jack, Clamp Type Jack, Clamp Type	2.28 2.35 2.03 2.03	1.55 1.60 1.35 1.35	1.38 1.39 1.45 1.24 1.24 1.30	1.30 1.35 1.17 1.17
828-2213 828-2233 828-2273 828-2293 828-2294	142-0213-001° 142-0233-001° 142-0273-001° 142-0293-001° 142-0294-001°	CCCDE	11	Bulkhead Jack, Clamp Type Bulkhead Jack, Clamp Type Bulkhead Jack, Clamp Type Bulkhead Feedthru Recep, Bulkhead Recep., Rear Mt.	2.35 2.45 1.78	1.60 1.65 1.20	1.45 1.50 1.10	1.35 1.41 1.03

			Cable			LPU	U11	
Stock No.	Mfr's Type	Fig.	Group or O.D.	Description	1-24	25- 49	50- 99	100- Up
828-2296 828-2297 828-2298 828-2287 828-2299 828-2281	142-0296-001° 142-0297-001° 142-0298-001° 142-0287-001° 142-0299-001° 142-0281-001†	FGHJKL	0.141	Panel Receptacle, Front Mt. PC Receptacle	1.40	1.55 .95 1.70	1.39 .85 1.56	1.30 .80 1.42
828-2283 828-2285 828-2286 828-2282 828-2284	142-0283-001† 142-0285-001† 142-0286-001† 142-0282-001† 142-0284-001†	M N P R	0.141 0.141 0.141 0.085 0.085	Jack/Cable Blkh. feedthru, jack/cable Flange mt., cable/jack Plug/cable Jack/cable		.80 1.30 1.35 .95 .90		



"QUICK-CRIMP" BNC'S

For crimp or solder connection to cable. Even when center contact is crimped, connector maintains constant impedance. VSWR identical to std. solder-type BNC's up to 10,000 MHz. Connectors may be used with other than 50-ohm cable for non-impedance match. Rated 500 V. max. Imped., 50 ohms. VSWR—1.25:1 max. (straight plug & jack). Cable retentions equal to cable braid. Teflon dielectric. Bronze female and outer contact. Make contact and all other parts brass. Center contact gold plated; other parts silver plated. Av. shpg. wt. 2 oz.

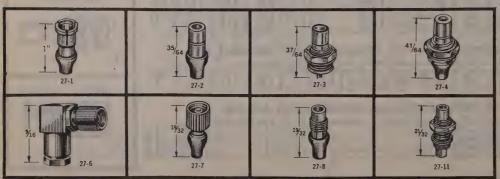
Stock	Mfr's	1	Sim. to	10 13 14 1	Use With Type		E	ACH	
No.	Туре	Fig.	UG/-U	Description	RG/U Cable	1-24	25-99	100-499	500-Up
713-9784	36775	TTXT	88E	Plug	58,58A,58C,141	1.75	1.40	1.10	1.28
713-9787	36875		88E	Plug	55,55A,142,223	1.85	1.48	1.16	.97
713-9785	36800		89C	Cable Jack	58,58A,58C,59/A/B,62,141	2.42	1.94	1.52	1.28
713-9818	68175		260B	Plug	59,62,71,140,210	1.72	1.38	1.08	.91
713-9817	68150	X	261 C	Cable Jack	59,62,71,140,210	3.10	2.48	1.72	1.44
713-9861	95725	W	909 B	Blkhd. Jack	58,58A,58C,59,141,210	3.52	2.82	2.22	1.86
713-9862	95750	W	910 B	Blkhd. Jack	59/A/B,62/A/C,140	3.68	2.94	2.30	1.93
713-9856	95600	W	913A	Angle Plug	58,58A,58C,141	8.95	7.16	4.26	3.88
713-9857	95625		913A	Angle Plug	62/A/C,140,59,210	9.27	7.42	4.42	3.94

"QUICK-CRIMP" BNC **CONNECTOR TOOLS**

Crimping tools for use with "Quick-Crimp" BNC connectors. Extra heavy-duty construction with long handles and narrow jaws of cold, hardened steel. Easy spring-loaded ratchet action assures uniform, secure crimp. Highly efficient design permits crimping in less than ten seconds. Crimp is so effective that the wires will break before they can be pulled from the contact crimped section. Average shpg. wt. 1 lb.

Stock	Type	Use With	EACH		
No.	No.	RG/U Cable	1-4	5-Up	
713-6305	227-350	55, 55B, 58, 58A, 58C, 141, 142, 223	142.78	90.00	
713-6306	227-375	59, 59A, 59B, 62 , 62A, 62C, 140, 210	142.78	90.00	
713-6323	227-932-1	For crimping center contact of all connectors at left		120.00	

"SUBMINAX" PUSH-ON AND SCREW-ON RF CONNECTORS



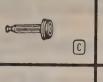
Feature full-size electrical characteristics in a space-saving design. Designed for subminiature coaxial cable. Low-resistance gold-plated bodies and contacts. Screw-on and push-on types cannot be intermixed; Impedance must match 50-ohms types except *75 ohms. †Require 227-900 installation tool. Average shpg. wt. 1 oz.

Canal	286.0	Description	EACH			
Stock No.	Mfrs. Type	Description	1-24	25- 49	50- 99	100- Up
713-0801 713-0802	27-1† 27-2†	Push-on Push-on	1.55	1.24	.73	.62 .73
713-0803 713-0804	27-3 27-4	Push-on Push-on	2.22	1.78	1.06	.89
713-0808	27-6	Push-on	4.65	3.72	2.22	1.86
713-0807 713-080E	27-7 27-8†	Screw-on Screw-on	1.60 1.95	1.28 1.56	.76 .93	.64 .78
713-0805 713-0811	27-9 27-11	Screw-on Screw-on	1.48	1.18 2.90	.70 1.73	.59 1.45
713-6313.	Type 227	-900 Tool. Ea	. 52.60	5-Up.	E	a. 41.5

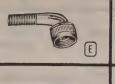
182 • **ALLIED**

M





D

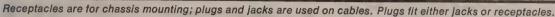












SERIES 75 SINGLE-BUTTON-CONTACT TYPES

Standard connectors with %'', 27 threads. Types marked with * require %'' mtg. holes. Order complementary cap and chain assemblies below. Av. shpg. wt., 4 oz.

Stock No.	Mfrs. Type	Fig.	Description	EACH					
			Description	1- 24	25- 49	50- 99	100- Up		
713-2710	75-MC1F	A	Straight plug	1.14	.90	.65	.58		
713-2718	75-MC1M	B	Cable plug	.98	.78	.56	.50		
713-2729	75-MC1P	C	Phone plug adap.	1.38	1.10	.83	.78		
713-2740	*75-PC1M	D	Receptacle open	1.08	.86	.59	.53		
713-2715	75-MC1FA	E	90° cable jack	3.32	2.66	1.53	1.33		

SERIES 80 SINGLE AND DOUBLE-PIN-CONTACT TYPES

For shielded cables, single and two-conductor coaxial cables, photo cell leads, etc. Center contacts are pin and socket type. *Single-contact. †Polarized, double-contact. Av. shpg. wt., 4 oz.

713-3100	*80 C	M	Female recept.	.98	.78	.57	.49
713-3104	*80-M	F	Male cable plug	1.23	.98	.71	.62
713-3106	†80-MC2F	G	Fem. cable jack	1.38	1.10	.80	.70
713-3107	†80-MC2F1	F	Fem. cable plug	1.38	1.10	.80	.70
713-3105 713-3109 713-3110 713-3111	†80-MC2M †80-MC2M1 80-PC2F †80-PC2M	F G M	Male cable plug Male cable jack Female recept. Male receptacle	1.30 1.30 1.10 1.07	1.04 1.04 .88 .86	.74 .74 .63 .61	.65 .65 .56

| Type 75-CCC1 Cap and Chain. Seals open chassis units against dirt. Used with Series 75 and 80 receptacles. Shpg. wt., 2 oz. 713-2704, 1-24.....Each .82 25-49Each .56 50-99Each .47 100-UpEach .41

 R
 Type 91-CCC3 Cap and Chain. Seals open chassis units against harmful dirt and dust. For use with Series 91 connectors, 2 oz. 713-4005. 1-24...... Each. 89
 25-49
 Each. 70

 50-99
 Each. 51
 100-Up
 Each. 26

SERIES 91-3, 4 AND 6-CONTACT TYPES
Microphone connectors for use with portable equipment. Polarized to eliminate incorrect insertions. Clamps eliminate stress on soldered connections *3-contact type. †4-contact type. ‡6-contact type. Shpg.

	1						
Stock	Mfrs.	Fig.	Description		EA	CH	
No.	Туре	riy.	Description	1-24	25- 49	50- 99	100- Up
713-4011 713-4012 713-4013 713-4014	*91-MC3F *91-MC3F1 *91-MC3M *91-MC3M1	HHJ	Fem. cable jack Fem. cable plug Male cable plug Male cable jack	1.84 1.92 1.81 2.15	1.48 1.50 1.44 1.72	1.06 1.10 1.04 1.34	.93 .96 .90 1.19
713-4033 713-4035 713-4017 713-4018	*91-PC3F *91-PC3M †91-MC4F †91-MC4F1	M	Female recept. Male receptacle Fem. cable jack Fem. cable plug	1.37 1.26 1.91 2.00	1.10 1.02 1.52 1.60	.81 .73 1.09 1.14	.71 .64 .96 1.00
713-4019 713-4020 713-4034 713-4037	†91-MC4M †91-MC4M1 †91-PC4F †91-PC4M	H M M	Male cable plug Male cable jack Female recept. Male receptacle	1.90 1.81 1.31 1.31	1.38 1.44 1.04 1.04	1.08 1.05 .78 .78	.95 .90 .67
713-4025 713-4027 713-4043	191-MC6F 191-MC6M 191-PC6F	J H M	Fem. cable jack Male cable plug Female recept.	1.96 2.00 1.40	1.46 1.60 1.12	1.13 1.14 .82	.98 1.00 .72

SERIES 91 "QUIK" 3 AND 4-CONTACT TYPES Locked connection made by inserting plug in jack; released by light pressure on lock button. Gold-plated (over silver) bronze contacts. Dielectric is diallyl phthalate, shells are finished in satin nickel. "3-contact type. 14-contact type. Av. shpg. wt., 4 oz.

0 00111001	3 PO. 11 OOI	icaot t	po. Av. silpy. W	1., 7	4		
713-4085 713-4086 713-4087 713-4088	*91-853 *91-854 *91-855 *91-856	K N P	Male cable plug Fem. cable plug Male receptacle Female recept.	3.08 4.09 2.39 5.67	2.46 3.18 1.90 4.54	2.35	1.54 2.06 1.20 2.84
713-4089 713-4090 713-4091	†91-857 †91-858 †91-859	L K N	Male cable plug Fem. cable plug Male receptacle	3.30 4.63	2.64 3.70 2.18	1.90 2.67	1.66 2.33

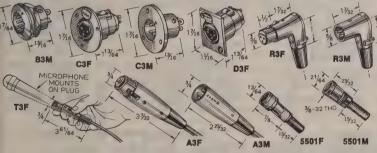






S

MALE AND FEMALE AUDIO CONNECTORS



3, 4 AND 5-CONTACT PLUGS AND RECEPTACLES

Offer up to 5-contact versatility by means of up to four circuit contacts plus electrically integrated ground terminal on shell. Neoprene cable strain relief bushing keyed to shell; ribbed for easy access

to male plugs. Die-cast zinc alloy with satin-nickel finish. All receptacles are 3-contact types which will mate with all standard audio connectors. *Single hole mounting. Av. wt. 2 oz.

Stook	Mfr's	Cannon	Description		EAC	CH	
No.	Type	Equivalent		1-9	10-24	25-49	50-Up
932-002 932-003 932-004 932-009 932-0012 932-0011 932-0030	A3F A3M A4F A4M B3M C3M C3F D3F	XLR-3-11C XLR-3-12C XLR-4-11C XLR-4-11C XLR-3-14N XLR-3-14 XLR-3-13 XLR-3-31	3 con. Fem. Plug 3 con. Maie Plug 4-con. Fem. Plug 4-con. Maie Plug *Maie Receptacle Maie Receptacle Fem. Receptacle Fem. Receptacle	2.80 2.40 3.50 2.60 3.45 3.70 1.85 3.80	1.68 1.44 2.10 1.56 2.07 2.22 1.11 2.28	1.54 1.32 1.93 1.43 1.90 2.04 1.02 2.09	1.40 1.20 1.75 1.30 1.73 1.85 .93

RIGHT-ANGLE CONNECTORS

Fine features of connectors above plus right-angle configuration which reduces "cable clutter." No. in Mfr's Type indicates number of contacts, Wt. 2 oz.

932-0160 R3F XLR-3-15 Female Plug 6.39 932-0161 R3M Male Plug 5.8	5 3.81 5 3.51	3.49	3.18

STRAIGHT CORD PLUG WITH ON/OFF SWITCH

Built-in switch permits instant fingertip control of audio. Provides inline DPDT control of 3-conductor circuits. Switch

rated 1 amp, 125 VAC or 0.5 amp, 125 VDC. Female connector has quick-ground feature. Wt. 2 oz.

					,	
Stock No.	Mfr's	Description		EA	CH	* * * * * * * * * * * * * * * * * * * *
	Туре		1-9	10-24	25-49	50-Up
932-0203	T3F	3-con. plug	8.65	5.19	4.75	4.33

"TINI-PLUGS" SUBMINIATURE PHONE PLUGS

ST For use with "Tini-D-Jax" and "Tini-Jax" phone jacks. 1\%" overall length. 2-conductor. Handles are plastic or nickeled brass (shielded). \\$Screw terminals, all others have solder terminals. Av. shpg. wt. 1 oz.

					EACH					
Stock No.	No. Equiv. Type	Fig.	Handle	1- 9	10- 24	25- 49	50- Up			
932-1335 932-1339 932-1343	740 745 750	33-740 33-670 33-662	SSSS	Black Red Black	1.03 1.05 1.00	.63 .63	.58 .58 .55	.53 .53 .50		
932-1347 932-1354 932-1362	755 770 780	33-664 33-666 33-660	T T§ T	Red Shield Shield	1.00 1.45 1.40	.60 .87 .84	.55 .79 .77	.50 .73		

W Type 125 "Tini-Extension Jax." 2-conductor; with solder-lug terminals. Mate with "Tini-Plugs." Av. shpg. wt., 2 oz. 932-0965. 1-9 Ea. 1.80 10-24 Ea. 1.08 25-49 Ea. .99 50-99 Ea. .90

"EXTENSION JAX" CABLE EXTENSION JACKS

Den circuit. Fit std. ¼" plugs. ¼" O.D. 2½" long; ¼" plastic; shielded are nickeled brass. §Screw terminals, others solder. 3 oz.

2-CONDUCTOR TYPE

932-0884	80	33-736	X§	Black	1.65	.99	.91	.83	/
932-0908	88	33-732	X	Black	1.50	.90	.83	.75	
932-0957	120	33-734	Z§	Shield	2.20	1.32	1.21	1.10	
932-0961	121	33-730	Y	Shield	2.30	1.38	1.26	1.15	

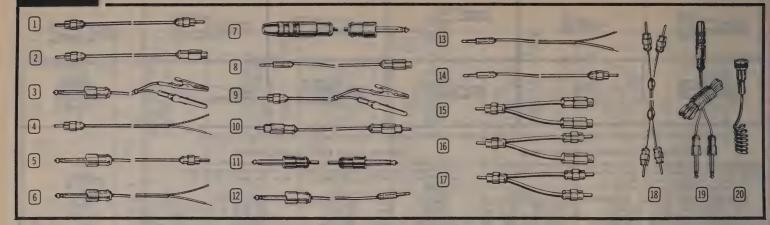
3-CONDUCTOR TYPE

932-0970 131 31	0-542 Y Shield	2.90 1.74	1.57 1.45
932-1440 1230 30	0-5421 Z* Shield	2.80 1.68	1.45 1.40

'MINI-CON" MICROPHONE-TYPE CONNECTORS

For single-conductor shielded cables to \(\frac{4}{16}'' \) O.D. Coupling ring on 5501F removable for quick change of female to male. 5501 MP fits 3/4" hole, 2 oz.

Stock Mfr's No. Type	Mfr's	Equiv.	Description	EACH					
	Туре	Type		1-9	10-24	25-49	50-Up		
932-1620 932-1622 932-1623	5501 F 5501 M 5501 MP	33-828 33-826 33-830	Female Male Panel male	.90 .75 .70	.54 .45 .42	.49 .42 .39	.45 .38 .35		



FINE QUALITY AUDIO CONNECTORS

Wide assortment of audio connectors covering virtually every application in industry, commercial or stereo use. Constructed of high-strength, lightweight plastic for long-life, noise-free operation. *Unshielded cable; †stripped, tinned, ready for solderingneed not remove insulation. ‡coiled cord jacket. Av. shpg. wt.

Stock	Manufacturer's	2 2				EA	СН	
No.	Equivalent Types	Description	Fig.	Ft.	. 1-11	12-49	50-499	500-Up
810-9000	42-2365	Phono Pin Plugs	1	5	.99	.84	.74	.66
910-9001	42-2366	Phono Pin Plugs	1	3	1.09	.92	.82	.73
910-9002	42-2367	Phono Pin Plugs	1	6	1.59	1.35	1.19	1.07
932-0607	30-406S 25AN25	Phono Pin Plugs	1 .	10	2.08	1.56	1.43	1.30
910-9005	42-2368	Phono Pin Plugs	1	12	2.39	2.03	1.79	1.60
910-9006	42-2361	Phono Pin/Plug Jack	2	3	1.39	1.18	1.04	.93
910-9007	42-2362	Phono Pin/Plug Jack	2	6	1.59	1.35	1.19	1.07
932-0610	30-430S 25AN82	Phono Pin/Plug Jack	2	10	2.08	1.56	1.43	1.30
910-9010	42-2363	Phono Pin/Plug Jack	2	12	2.39	2.03	1.79	1.60
932-0353	30-462S 05CN86	Phono Plug/Clips*	3	10	2.44	1.83	1.68	1.53
910-9012	42-2370	Phono Pin Plug/Tinned†	4	3	.90	.77	.68	.60
910-9013	42-2371	Phono Pin Plug/Tinned†	4	6	1.29	1.10	.97	.86
910-9014	42-2372	Phono Pin Plug/Tinned†	4	12	1.69	1.44	1.27	1.13
932-0685	25AR84	Phono Pin Plug/Tinned†	4	15	2.32	1.74	1.68	1.45
932-0322	30-444S 05AK25	Phono Plug/Pin Plug	5	6	1.98	1.53	1.41	1.28
932-0328	05AN25	Phono Plug/Pin Plug	5	10	3.50	2.98	2.63	2.35
932-0326	30-4505 05AK84	Phono Plug/Tinned†	6	.6	1.50	1.38	1.27	1.15
910-9020	42-2377	Phono Plug/Jack	8	6	1.99	1.69	1.49	1.33
932-0324	30-448X 05AK80	Phono Plug/Jack	7 6	6	2.65	2.01	1.85	1.68
910-9021	42-2378	Phono Plug/Jack	7	12	3.29	2.80	2.47	2.20
910-9024	42-2421	Mini Phono Plug		10	1.69	1.44	1.27	1.13
B40 8000	40.0400	Alligator Clips	9	10				
910-9026	42-2420	Mini Phono Plug/Plug		6	1.59	1.35	1.19	1.07
910-9027	42-2472	Mini Phono Plug/Jack	8	6	2.49	2.12	1.87	1.69
910-9030	42-2359	Pin Plug/Clips	9	12	2.29	1.95	1.72	1.53

	Stock	Manufacturer's						EAG	CH*	
	No.	Equivalent		Description	Fig.	Ft.	1-11	12-49	50-499	500-Up
	932-0683		6AR26	Long Handle Pin Plug	10	15	2.67	2.01	1.85	1.68
	910-9033		and a	Phono Plugs	11	6	2.49	2.12	1.87	1.69
	932-0327		5AN05	Phono Plugs	11	10	3.45	2.70	2.48	2.25
	932-0765		ODF05	Phono Plug to Mini Pl.	12	. 3	2.38	2.10	1.93	1.75
١.	932-0774		0DK05	Phono Plug to Mini Pl.	12	6	2.38	2.10	1.93	1.75
	932-0770	1	0DF84	Mini Plug/Tinned†	13	3	1.84	1.38	1.27	1.15
	932-0780	30-4158 4	0DK84	Mini Plug/Tinned†	13	6	2.04	1.53	1.41	1.28
	932-0767	30-410S 40	0DF25	Mini Plug to Phono Pin	14	3	2.16	1.62	1.49	1.35
	910-9037	42-2444 .		Mini Plug to Phono Pin	14	6	1.49	1.27	1.12	1.00
	932-0787	30-405S 40	0DN25	Mini Plug to Phono Pin	14	10	2.95	2.22	2.04	1.85
	910-9040	42-2436 ,	1%	Adp. (Pin Pl./Jks.)	15	4"	1.89	1.61	1.42	1.27
	932-0775	30-512S 3	30-F2Y	Adp. (Pin Jks./Pls.)	16	4"	2.25	1.50	1.38	1.25
	910-9041	42-2438	,	Adp. (Pin Pls.)	17 .	4"	1.89	1.61	1.42	1.27
	910-9043	42-2435	la de la	Adp. (Phono Pls./Jk.)		4"	1.89	1.61	1.42	1.27
	910-9045	42-2351		Pin Plugs	18	3	2.99	2.54	2.24	2.00
	910-9046	42-2352		Pin Plugs*	414	6	3.59	3.05	2.69	2.41
	932-0368	05	5FH81	Phono Pls./3 Con. Jk.	19	4	4.48	3.36	3.08	2.80
	910-9054	42-2357		Mike Connector‡	20	6	2.29	1.95	1.72	1.53
	910-9050	42-2471		3 Cond. Phone Jack			2 20	0.00	2.47	0.00
ŀ				to 2 Phono Plugs		3	3.29	2.80	2.47	2.20
	910-9051	42-2448 .	C	3 Cond. Phone Plug						
				to 2 3-Cond. Phono Jks.		3	4.99	4.24	3.74	3.34
	910-9055	42-2473		Guitar Cord; Phone Pls.		15	6.99	5.94	5.24	4.68
						L				

FLAT PHONE PLUGS





14" flat phone plugs for use where space is limited. Removable plastic cap for easy connection of wire leads. Tip rods, 1\(\frac{1}{2}\)c L. All metal parts, nickel plated brass. Screw terminals except * have solder terminals. Types 220, 225 accept standard phone tips. Take cables up to .250" Ob. Type \$-230 has .206" dia. sleeve. Types 228, 238 are shielded. Av. shpg. wt; 4 oz,

2 CONDUCTOR

					EAC	H	
Stock No.	Equiv. Type	F.	Color	1-	10- 24	25- 49	50- Up
932-1015 932-1018 932-1020 932-1022	220 33-698 225 33-686 227 33-682 228°	A A B	Black Red Black Metal	1.26 1.26 .99 1.13	.84 .84 .66 .75	.77 .77 .61	.70 .70 .55 .63

	2 COMPOCION										
1025 1029	230 237	33-678 33-676	B	Black Black	1.53	1.02	.94	.85			

PHONE JACKS



X-long bushings. Use panels up to 1¼" thick. Shielded jacks. Accept standard ¼" plugs. Need 1½" mounting hole. Solder terminals. Cord-strain relief clamp. 2%" L. Av. shpg. wt: 2 oz.

			_		EACH	
Stock No.	Mfr's Type	Cond.	For "Litte! Plugs"	1-9	10- 24	25- Up
932-0980	151	2	240, 245, 250, 255, 270, 280	1.49	.99	.90
932-0983	152B	3	260, 267, 269, 297	1.62	1.08	.99

PHONE PLUGS, JACKS



Standard ¼" plug. 222: 2-conductor, screw terminals. Plastic barrel. Others have brass barrel. 275: open circuit, ¾"-32 shank, ½" long. Needs 1" behind panel. 2 circuit. 277: 3 circuit.

			EACH						
Stock No.	Mfr's Type	Description	1-24	25- 99	100- 499	500- Up			
920-0264 920-0263 920-0304 920-0333 920-0335	222 222 252 275 277	Plug (black) Plug (red) Plug (brass) Std. Jack Std. Jack	.85 .85 1.34 .45 .58	.68 .68 1.07 .36 .46	.57 .57 .99 .33 .43	.49 .49 .76 .25			

MOTOROLA-TYPE PLUG, JACK

RCA PHONO JACKS

Type †200 Motorola-Type Piug. Connects coaxial antenna lead-in to auto radio; pin dia. ½". Shipping weight 1 cz. Type †207. Motorola F Conn. Jack. Mtg. hole 1½2".

Type 1214. 2 Std. RCA-type phono jacks. 1½ x1" base. For phono players, recorders. Shipping weight 1 cz.



	1			EACH					
Stock No.	Mfg's Type	Fig.	1- 99	100- 99	1000- 4999	5000- Up			
920-1200		C	.16	.13	.11	.09			
920-1214 920-1207		E	.13	.10	.09	.07			

PLUGS AND JACKS



					1- 125-1	
Stock No.	Mfg's Type	Fig.	Des.	1- 24	25- 49	50- Up
750-1035 750-1230 750-0830	13A 81A 2RP	F G H	Pin Plug PinJack Rec. Plug	.11 .19 .23	.09 .13 .16	.08 .12 .13

Phone, Phono Jacks and Plugs, Adapters 1/4 DC -ID (D) 119/64-13/16-

"LITTLE-PLUG" PHONE PLUGS

Fit std. ½" phone jacks — exc. S250, S280 have .206" dia. sleeve to mate S-11 "Little-Jax." §Screw terminals—others, solder (with cable clamp). Nickel plated brass (shielded) handles, 11½" L; ½" dia. 4 oz.

1 3/32 -1 1 1/16 -

2-CONDUCTOR TYPES

Stock	En			Handle		E/	EACH		
No.				Color	1- 9	10- 24	25- 49	50- Up	
932-1033 932-1036 932-1039 932-1041	240 245 250 255	33-600 33-602 33-606 33-608	A A A	Black Red Black Red	.76 .76 .72 .72	.57 .57 .54 .54	.53 .53 .50 .50	.48 .48 .45 .45	
932-1053 932-1056 932-0198	270 280 S-280	38-604 33-610 33-632	B B B	Metal	1.08 1.04 1.12	.81 .78 .78	.74 .72 .72	.68 .65 .65	
	3-CONDUCTOR TYPES								

932-1044 932-1050 932-1060 932-1064	267 290	33-664 33-640-2 33-648 33-642	A§ A B§ B	Black Black Metal Metal	1.07 1.40	.81 1.05	.74 .96	.68	
--	------------	--	--------------------	----------------------------------	--------------	-------------	------------	-----	--

STANDARD PHONE PLUGS

14" plug. Fig. A has bakelite handle, others metal. 2\(\frac{1}{6}\)'' long, \(\frac{4}{6}\)'' dia., exc.: \(^*1\)' long, \(^*1\)O, 190A have \(^2\)\(^*2\)-piece handle with cable clamp for \(^4\)'' cable. \(^*1\)C. 2-CONDUCTOR TYPES WITH SCREW TERMINALS

932-0760 40 33-622 A Black 80 60 55 50

932-0880 932-0987 932-0990	70 160 170	33-628 33-626	E*	Metal Metal Metal	1.04	.78	.72	.80 .65
3-CONI	UCT	OR TYPES	WIT	TH SOL	DER '	TERM	IINALS	3
932-0860	60	33-640-2	A	Black	1.08	.81	.743	.68

"LUG-PLUG" PHONE PLUGS

Fit standard 1/4" Jacks. Solder terminals. Nickel plated exterior. Type 350: black handle, 11/4" long, 1/4" dla. Type 380: shielded bare metal handle, 1" long. Wt. 4 oz.

932-1147 932-1210		Plastic Metal		

JACK COVERS

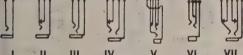
bushin

g jac		ut seals in 3 oz.			SAMM.	7/16
				EAC	H	
ock	Mfr's	Color	1-	10-	25-	50-

				EAGH					
Stock No.	Mfr's Type	Cofor	1-	10- 24	25- 49	50- Up			
932-1280 932-1283 932-1287	512 515 520	Nickel Black Gray	1.22 1.22 1.22	.81 .81 .81	.74 .74 .74	.68 .68			

JACK SCHEMATIC DIAGRAMS

See below, OC indicates open circuit; CC, closed circuit; TC, transfer circuit; RCC, ring closed circuit.



OC CC-TC 2-CC RCC CC

MICRO-JAX AND MICRO-PLUGS

Ultraminiature 2-cond. plugs, jack. Plugs 11%" long. Mate TR-2A jack, 17½" long. Take cables to 7/74" dia. Screw-on shield handles and cable clamps. Can be used as open or closed circuit. Fits .190" hole. Wt. 2 oz.

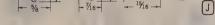


2-CC

Stock No.		Des- crip- tion	Color	EACH					
	Mfr's Type			1-	10- 24	25- 49	50- Up		
932-1386 932-1389 932-1395 932-0234	850 855 880 TR-2A	Plug Plug Plug Jack	Black Red Silver Silver	.77 .77 .77	.51 .51 .51	.47 .47 .47	.43 .43 .43		

331A ADAPTER KIT





SWITCHBOARD-TYPE "MT-JAX," "T-JAX"

Nickel-silver-alloy springs. Mil-itary types, "MT," meet MIL-J.-641(A), have welded cross-bar palladium contacts. Non-military types, "T," have silver contacts.3-conductor.1/4"bshg.



Stock	Mfr's	Dia-		EAC	H		1
No.	Type	gram	1-9	10-24	25-49	50-Up	
932-0113 932-0220	MT-332B T-332B	111 111	1.20	1.35	.82	.75 .52	
932-0115	MT-334B	. V	1.44	1.62	.99	.90	

"TINI-D-JAX" ENCLOSED PHONE JACK

"INI-D-JAX" ENCLOSED
Completely enclosed, subminiature
2-cond. phone jacks. Fully insulated
moided plastic housing protects
nickel-plated contact springs. Mate
with "Tini-Plugs." 56" depth behind
panel. Bushing 14"-32 threaded x
.203" long. Average shpg. wt. 2 oz. 93



_	Average					
2-0975	142A	H	.52	.39	.35	
668	U.D. IA	VII				

"HI-D JAX"
High-density phone jack. Only %" sq., 7½" grams — great for PCs. Nickel-silver-plated springs. Mnt. in ¾" hole, panels to ½" thick. Take std. 2/3-cond. ¼" plugs. Hardware incl. *For stereo. Wt. 2 oz.



	200.100.1011 111 20											
932-0940 932-0941	111 112A	- II	.50 .54	.33	.30	.27						
3-CONDUCTOR TYPES												
932-0942 932-0944 932-0952	112B 113B *114B	III IV VII	.59 .77 .86	.39 .51 .57	.36 .47 .53	.32 .42 .47						

N-Series "Hi-D" Jax. Prefix "N" designates nylon bushing. Insulates sleeve terminal from mounting panel, eliminating possible source of noise and cross-talk. Specs same as above. *For stereo. Wt. 2 oz.

2-CONDUCTOR TYPES

932-0039	N-111		.63	.42	.39	.35					
3-CONDUCTOR TYPES											
932-0141 932-0143	N-112B *N-114B	III VII	.64	.54 .66	.50 .61	.45 .55					

"TINI-JAX" MINIATURE PHONE JACKS

Extra small. 2-cond. Jacks for use with "Tini-Plugs." Same as "Little-Jax" above, but one third the size. $^{2}/_{52}$ "L; fit $^{1}/_{4}$ " dia. hole. 2 oz.



"LITTLE-JAX" PHONE JACKS
For std. ¼" plugs—exc.: *takes \$.250, \$280, 385 plugs; †takes 480 military-type
"Little Plug"; *takes standard Little-Plugs
for switching out speakers when 3-wire
stereo headphones are plugged in. Dual
contacts open both circuits when 3-cond.
std. "Little Plug" is inserted. All: ½" dia.
thread. shank; ½z" L, exc.; ½" L. With nut,
washer. 3 oz.
2-CONDUCTOR TYPES



2-CONDUCTOR TYPES

					EACH				
Stock No.	Equiv. Type		Dia- gram	1-	10- 24	25- 49	50- Up		
932-0480 932-0013	11 C-11	33-690 33-694		.44	.33	.30	.27		
932-0076 932-0189	‡L-11 *S-11	33-700		.60	.39	.35	.32		
932-0485	12A	33-692	11	.48	.36	.33	.30		

	. 3-	CONDUC	CTOR	TYPES			
932-0486 932-0015 932-0505 932-0509	12B †C-12B 13B §14B	33-708 33-712 33-710 33-711	III IV VII	.56 .76 .80 1.04	.42 .57 .60 .78	.38 .52 .55 .77	.35 .47 .50 .65

JACK ADAPTERS AND CONNECTORS

338B pin plug with mike connector, 389 3-contact mike receptacle input to same output, 390 3-pin mike plug to equipment with this output. Av. wt. 4 oz.

Stock No.	Mfr's Type	Fig.	Description	1- 9	10- 24	25- Up
932-1103	330F		2 Phono Pin Jacks; Phono Pin Plug	1.70	1.29	1.18
932-1219	389		Oouble-ended 3-contact		3.00 2.52	
932-1220	390	11	Double-ended 3-pin plug	3.78	2.52	2.31

PHONE JACKS AND PLUGS

3/8 M

13/32 [L]

15/16

3508. Color coded phone plugs with cable clamp and "snap-on" plastic handles in red, black or white simplify wiring. 3 oz.

						EA	CH	
Stock No.	Equiv.	Types	Fig.	Description	1-	10- 24	25- 49	50- Up
932-1503 932-1502 932-1501 932-1509	3501FR 3501FP 3501F 3503	33-804 33-796 33-774	F G H K	Jack Jack Jack Ext. Jack	.40 .32 .12 .56	.30 .24 .09 .42	.28 .22 .08 .39	.25 .20 .07
932-1506 932-1505 932-1504	3501MC	33-772 33-769 33-770	J M L	Plug Plug Plug	.44 .12 .08	.33 .09 .06	.31 .08 .06	.28 .07
932-1522 932-1523 932-1526	3508-1 3508-2 3508-5		N N N	Plug, Red Plug, Black Plug, White	.23 .23 .23	.15 .15 .15	.14 .14 .14	.13

RF PHONE JACK AND PLUG

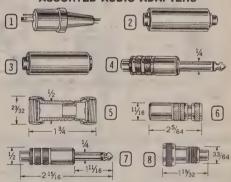
Nylon insulation. 2-cond.

Jack: panel front mtg.
Hardware incl. Plug: long



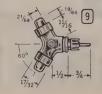
grip and Wt. 2 oz.	cable	clamp.	P)	R	1 - 5% -
932-1520 932-1516			PR	Plug Jack • .].77 .57	.51 .47 .45 .39 .36 .33

ASSORTED AUDIO ADAPTERS



30-1526: 2-pin din plug on one end, 9-ft. of Europeanstyle connector cable with term. lugs on other. 30-471:
adaptor with phono pin jack on one end; other end std.
mike connector. 30-1570: phone plug coupler has std.
2 cond. ¼" phone jack on each end. 30-1570: phone plug
coupler has std. 2 cond. ½" phone jack on each end.
30-472: adaptor with std. ¼", 2 cond. phone plug on one
end; other end phono pin jack. 33-864: coupler, connects
2 male-type mike conn. 33-868: adaptor with std. phone
jack input, female mike conn. output. 33-852: adaptor
with RCA-type phono jack input, std. phone plug output,
heavy-duty metal shielded type. 33-856: adaptor with RCA
type phono jack input, female mike conn. output.

					EAL	n	
Stock No.	Mfr's Type	Fig.	Description	1- 9	10- 24	25- 49	50- Up
932-3526 932-3471 932-3570 932-3472	30-471 30-1570	2	Plug with cable Phono adapter Phone adapter Phone adapter	1.43 2.03 1.13 1.63		.75	
932-3868 932-3864 932-3852 932-3856	33-864 33-852	6 7	Phone adapter Mike Coupler Phono/Phono Adp. Phono/Mike Adp.	1.42 1.34	1.14	1.40 1.14 1.08 1.13	1.04



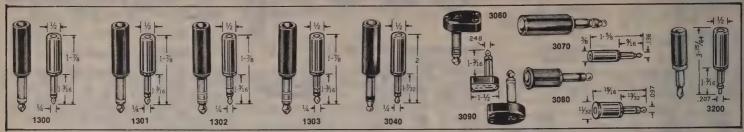




Allied® Phone, Phono, Extension Plugs and Jacks

PHONE PLUGS

Made to standard dimensions to mate with all standard items. Nickel-plated brass and Delrin. Solder connections are tinned

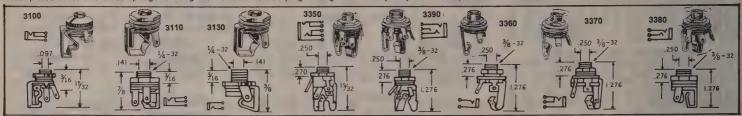


			STANDARD 1/4" TYPE						
Otral	200-1-			EACH					
Stock No.	Mfr's Type	Color	Description	1- 99	100- 499	500- 999	1000- Up		
868-3001 868-3002 868-3003	1300R	Black Red Metal	2-cond. Screw term. Mates w/jacks 3360, 3370.	.68 .68 .97	.54 .54 .77	.45 .45 .64	.39 .39 .55		
868-3010 868-3011 868-3012	1301R	Black Red Metal	2-cond. Solder term. Mates w/jacks 3360, 3370.	.64 .64 .94	.51 .51 .74	.43 .43 .62	.37 .37 .53		
868-3020 868-3021 868-3022	1302R	Black Red Metal	3-cond. Solder term. Mates w/jacks 3380, 3390.	.97 .97 1.18	.77 .77 .95	.64 .64 .79	.55 .55 .67		
868-3030 868-3031 868-3032		Black Red Metal	3-cond. Screw term. Mates w/jacks 3380, 3390.	1.08 1.08 1.26	.86 .86 1.00	.72 .72 .84	.61 .61 .72		
868-3051	3060B	Black	Right angle type, 3-cond. Screw Terminals, Mates, 3380, 3390	1.22	.98	.81	.69		

			STANDARD 1/4" TYPE (Cont'd)				
Stock	Mfr's				EA	CH	
No.	Type	Color	Description	1- 99	100- 499	500- 999	1000- Up
868-3060	3090B	Black	Right angle type, 2-cond. Mates with 3360 and 3370.	1.00	.80	.67	.57
			MILITARY SPECIFICATION TYPE				
868-3040 868-3200			Mil PJ055, 2-cond, Solder Term. Mil PJ068, 3-cond, Solder Screw Term.	1.20 3.34	.96 2.77	.80 2.23	.68 1.98
	La	, A	MINIATURE AND SUB-MINIATURE TY	PES			
868-3054 868-3056 868-3055	3070B 3070R 3070M	Black Red Metal	2-cond. Solder Terminals. Mates w/3110 and 3130.	.64 .64 .90	.51 .51 .72	.43 .43 .60	.37 .37 .51
868-3057 868-3059	3080B 3080R	Black Metal	\2-conductor. Solder Term. ∫Mates with jack 3100.	.61 .61	.49 .49	.40 .40	.34

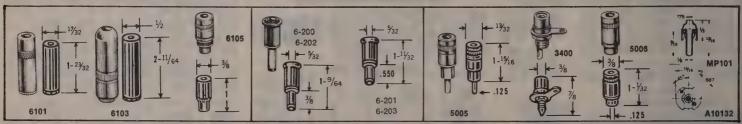
PHONE JACKS

Nickel-plated brass and brass springs for long life and trouble-free plug mating. Extra-heavy duty insulators prevent breakdowns



	MIN	HATURE	AND SUB-MINIATURE AND 1/4"	STEREO	TYPES					
Charle	BAANTA		T		EACH					
Stock No.	Mfr's Type	Color	Description	1-	100- 499	500- 999	1000- Up			
868-3063	3100	Metal	2-conductor. Fits plug 3080.	.46	.37	.31	.26			
868-3064	3110	Metal	2-conductor. Closed circuit. Fits plug 3070.	.43	.34	.28	.25			
868-3066	3130	Metal	2-conductor. Open circuit. Fits plug 3070.	.39	.31	.26	.22			
868-3350	3350	Metal	Stereo Phono Jack, Fits Plugs 1302, 1303, 3060,	1.05	.84	.70	.60			

Stock	Mfr's			EACH				
No.	Туре	Color	Description	1-	100- 499	500- 999	1000 Up	
868-3390	3390	Metal	3-cond. Closed Circuit. Fits 1302, 1303, 3060.	1.00	.80	.67	.57	
868-3360	3360	Metal	2-conductor. Open Circuit. Fits 1300, 1301, 3040, 3090.	.33	.31	.26	.22	
868-3370	3370	Metal	2-cond. Closed Circuit. Fits 1300, 1301, 3040, 3090.	.49	.38	.32	.27	
868-3380	3380	Metal	3-cond. Open Circuit. Fits 1302, 1303, 3060.	.56	.45	.38	.32	



EXTENSION IN-LINE PHONO JACKS

Stock	884-2-				EACH					
No.	Mfr's Type	Color	Description	1- 99	100- 499	500- 999	1000- Up			
868-3401 868-3403	6101	Metal Metal	2-conductor 3-conductor	1.08 1.26	.86 1.00	.72 .84	.61 .72			
			MINIATURE							
868-3405	6105	Metal	2-conductor	1.08	.80	.67	.57			

AC ADAPTER COAXIAL JACKS

Canala	Mfr's				EA	СН	
Stock No.	Type	Color	Description	1- 99	100- 299	300- 499	500- Up
868-6200 868-6201 868-6202 868-6203	6-200 6-201 6-202 6-203	Green Red Blue Tan	.080 I.D./.218 O.D. .097 I.D./.218 O.D. .080 I.D./.195 O.D. .097 I.D./.195 O.D.	.46 .46 .54 .54	.37 .37 .43 .43	.31 .31 .36 .36	.26 .26 .31 .31

PHONO PLUGS AND JACKS

Precision shape guarantees firm contact. Well-anchored insulators prevent turning and wires pulling loose.

	STA	NDARD S	SIZE FITS ALL PHONO PLUG	S AND	JACKS	3	500- 1000- 999 Up .26 .22 .19 .16
Olivet.	Mfr's			ACH	,4 0		
Stock No.	Type	Color	Description	1- 99	100- 499		
868-3396	5005	Metal	Phono Plug. 1/4" size. Shielded handle.	.39	.31	.26	.22
868-3400	3400	Metal	Phono Jack. Front mount in 3/8" hole.	.28	.22	.19	.16
868-3397	5006	Metal	In-line Phono Jack.	.58	.39	.33	.28

Jack mounted on 1/16" bakelite disc; 11/16" mtg. centers. Shielded pin plug has 1/2" pin

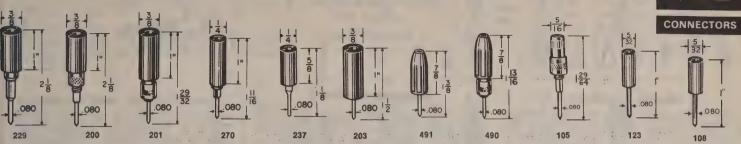
Stock No.	8.84±2m	Mfr's		EACH					
	Type		1- 99	100- 499	500- 999	1000- Up			
868-0424 868-0425	A10132 MP101	Jack Plug	.08 .06	.06 .05	.05 .04	.04			

186 • ALLIED

Allied® Tip Plugs, Jacks, Lug Adapters

WIDE SELECTION OF INSULATED AND NON-INSULATED TYPES FOR TEST EQUIPMENT AND GENERAL APPLICATIONS





Allied Electronics' own tip plugs and jacks are insulated and non-insulated types. Allied Electronics' own lug adapter is insulated type. All types are accurately molded and machined of U.S.A.-made materials,

INSULATED TIP PLUGS

Feature nickel-plated brass construction for heavier current applications. Handles are molded thermosetting plastic except Type 237, molded butyrate; Types 490 and 491, molded nylon; and Type 270, fibre. 12 amps AC. Av. shpg. wt. 2 oz.

					EAG	CH	
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up
920-0277 920-0278	229 229	Red Black	Std. tip; large dia. for soldering heavy-duty wire into nickel-plated brass body.	.26	.21	.17	.15
920-8000 920-8001	200 200	Red Black	Solderless; wire tightens securely under knurled collar.	.26	.21	.17	.15
920-0202 920-0203	201 201	Red Black	"Jr." solderless phone tip; wire fastens under knurled collar.	.23	.18	.15	.13
920-0327 920-0328	270 270	Red Black	Submin.; std. tip, extra small dia.	.30	.24	.20	.17
920-0289 920-0290	237 237	Red Black	Hollow phone tip, solder-type.	.19	.15	.13	.11
920-0216 920-0217	203 203	Red Black	Short tip plug for applications where minimum metal can be exposed.	.20	.16	.14	.12

then rigidly inspected to assure and insure precision quality. Check our wide selection for all your electronic requirements ... commercial, industrial, military. Tip jacks are supplied with hex mounting nut.

INSULATED TIP PLUGS (Cont'd)

					EA	СН	
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up
920-0578 920-0577 920-0590 920-0580	491 491 491 491	Red Black Yellow Green	Short, tip plug (%" handle). Inserts flush, no metal exposed, Molded nylon handle.	.24	.19	.16	.14
920-0575 920-0576	490 490	Red Black	Solderless tip plug with molded nylon handle. Threaded type.	.30	.24	.20	.17

NON-INSULATED TIP PLUGS

Nickel-plated brass phone tip plugs. Fit standard phone tip jacks. Type 123 .149" inside dia, for larger wire. Rated 12 amps AC, 10°C temp. rise, continuous duty. Av. shpg. wt. 2 oz.

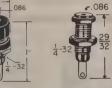
920-0105	105	Nickel- plated	Solderless, all metal. Wire fastens under knurled collar.	.23	.18	.15	.13
920-0123	123	Nickel- plated	Heavy-duty solder-type.	.08	.064	.05	.04
920-0108	108	Nickel-	Std. solid phone tip. Solder	.05	.04	.03	.02



920-0293

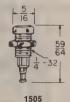


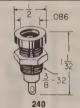
241 Black















EACH

NYLON-INSULATED TIP JACKS Each has self-insulating nylon-insulated body. Hex nuts are brass nickel-plated. All accommodate standard phone tip plugs. Average shpg. wt. 2 oz.

INSULATED TIP JACKS Tip jacks in table below have moided plastic heads with brass nickel-plated bodies. Phosphor bronze contact. Mounts in $\frac{6}{16}$ hole. With nut. Shpg. wt. 2 oz.

107

				EACH			
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up
920-0181 920-0208 920-0206 920-0207 920-0182	202 202 202 202 202 202	Red Yellow Green Blue Black	With phosphor-bronze spring. Supplied with extruded fiber washer for insulated mounting in panel to %" thick.	.23	.18	.15	.13
920-0292	241	Red	Supplied with molded nylon	44	00	07	00

NON-INSULATED TIP JACK

head, washer.

All metal Brace nickel-plated hady Phoenhor-branze enring With put Shad

				•				
920-0107	107	Nickel- plated	Mounts in ¼ to ¾" thicl	" hole; fits pa k.	nels .2	3 .1	8 .15	.13

Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up	
920-1512 920-1516 920-1514 920-1515 920-1513	1505 1505 1505 1505 1505	Black Yellow Green Blue Red	Wrap-around type. Hex head. Mount in ¼" hole in panels to ¼" thick.	.32	.26	.22	.19	
920-0294 920-0295	. 240 240	Red Black	Ph. br. spring. For %" hole, to %" panel. Rated 5000V.	.30	.24	.20	.17	
920-8012 920-1501 920-1507 920-1505 920-1506 920-1502	1501 1501 1501 1501 1501	Red Black Yellow Green Blue White	Wrap around type made to MS-16108 specifications.	.45	.36	.30	.25	

Spade type made to MS-16108 specifications.

RIGHT ANGLE STANDARD AND MIL-TYPE TEST JACKS

Accept standard .080" diameter probe tips at either end. Snap into .052" diameter holes on .400" centers. Type 430 is for use with PC boards up to 3/16" thick; Type 325 is for use with PC boards up to 1/16" thick. Type 430 is tested to MIL-P-20693A for nylon; MIL-STD-202B

for mechanical tests. Type 325 is made to meet MIL-C-39024/11. Both units rated at 5 amps and 1.5 kV, 60 Hz continuous. Both units can be spaced side-by-side .160" on center minimum, 2 oz.

920-1509

1502

Black

			EACH				
Stock No.	Mfr's Type	Color	1- 99	100- 299	300- 499	500- Up	
920-0435 920-0430 920-0429 920-0432 920-0433 920-0431	325 325 325 325 325 325 325 325	White Red Black Green Blue Yellow Gray	.18 .18 .18 .18 .18 .18	.14 .14 .14 .14 .14	.12 .12 .12 .12 .12	.10 .10 .10 .10 .10	

			-	ĘA	СН	
Stock No.	Mfr's Type	Color	1- 99	100- 299	300- 499	500- Up
920-0539 920-0532 920-0530 920-0535 920-0536 920-0534 920-0538	430 430 430 430 430 430 430	White Red Black Green Blue Yellow Gray	.25 .25 .25 .25 .25 .25	.20 .20 .20 .20 .20 .20 .20	.17 .17 .17 .17 .17 .17	.145 .145 .145 .145 .145 .145

INSULATED SPADE LUG ADAPTER

.63

.51

.42

Banana plug to spade lug adapter. Molded plastic handle. Wire may be soldered to plug or terminated in banana plug. Fork fits binding posts and terminal screws to No. 10. Average shpg. wt. 2 oz.



218

				EA	CH	
Stock No.	Mfr's Type	Color	1- 99	100- 299	300- 499	500- Up
920-0250 920-0251	218 218	Red Black	.22	.17 .17	.14	.12

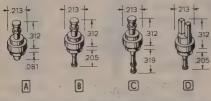


INSULATED TERMINALS

Stand-off types, except 1430-1433 (feed-thru). Turret, bifurcated terminals. Base connect, are stud, female, swage. Breakdown voltages, 1500-10,000V, AC. Brass, with .000015" gold plate over .0003" silver plate. Cadmiumplated brass bases. Brass per QQ-B-626, comp. 22, ½ hard. "S" = thread or shank dia.; "X" is shank length, except * overall length. "Ins.": P, phenolic (MIL-P-14020 CL. 2); A, Alkyd (MIL-M-14E Ty, Mag); T, Teflon (AMS-3651 B); H, Hi-alumina (Jan 1-10, L-5A); D, Diallyl Phthalate (MIL-M-19833, GD1-30). Wt. per pkg. 25, 2 oz.

	Stock	Mfr's	S	Х	Ins.	PER	PKG./	25
	No.	Type		Inches		1-9	10-24	25-Up
	971-0403	1400B	6-32	.250	P	6.88	5.50	4.58
	971-0409	1417	6-32		Α	7.88	6.30	5.25
	971-0410	1418B	6-32	.250	A	7.88	6.30	5.25
	971-0413	1423	6-32		Α	9.25	7.40	6.17
	971-0414	1425	2-56	.218	Α	9.25	7.40	6.17
	971-0417	1427	2-56		A	9.25	7.40	6.17
	971-0419	1430	10-32	.687°	D	14.31	11.45	9.54
	971-0420	1431	10-32		T	14.83	11.86	9.88
-	971-0421	1432	5-40	.796*	T	11.94	9.51	7.96
	971-0422	1433	1/4-28	.875°	D	14.83	11.86	9.88
	971-0425	1450B	6-32	.250	T	9.25	7.40	6.17
	971-0426	1450H	4-40	.375	T	9.25	7.40	6.17
	971-0427	1451	6-32		T	9.25	7.40	6.17
	971-0429	1456	6-32		T	10.25	8.20	6.83
	971-0430	1456A	4-40		T	10.25	8.20	6.83
Ш	971-0439	1480D	4-40	.218	H	10.63	8.50	7.08
Ш	971-0446	1491A	2-56		T	10.94	8.75	7.29
46								

SERIES 4400 LOC-FIT TERMINALS



Nom. Chassis thickness, y_{16} ". Types 4441, 4442, 4444, 4449 are feed-thru. Type 4449, taper-pin receptacle. Mtg. hole: all y_{6} ", except y_{6} ". Brass terminals, receptacles, y_{2} hard comp. 22 per QQ-B-2626. Finished std.-9 (0.00015 over 0.0003 silver). Insulator, Teflon per MIL-M-14077.

Stock	Mfr's	Fig.	Lath.	PER PKG./25		
No.	Type		Inches	1-9	10-24	25-Up
971-0538	4441B	A	.580	4.88	3.90	3.25
971-0539	4442B	В	.693	4.88	3.90	3.25
971-0541	4444B	D	.580	5.25	4.20	3.50
971-0546	4449B	C.	.830	6.69	5.35	4.46

SWAGING MACHINE



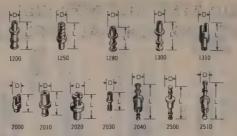
Model B. Manual swaging machine of rack and pinion construction. Precision machined for smooth and rapid work. Designed for simplicity and ease of operation. Throat depth, 5½"; stroke depth, 6¾". Adjustable platten may be rotated to accept ½", ½", ¼" and ¾" dia. bottom tools. Adjustable stop controls depth of stroke. Shpg. wt. 20 lbs.

971-0002.	1-4	 6.00	 . Each	141.67
5-Up		 	 . Each	105.00

SWAGING INSTALLATION TOOLS

Chromium steel alloy. Tools are $1/2^{\prime\prime}$ dia., mount in Model B above, or A version. Tool fits terminal type next to it. 7 oz.

971-0354 1310 1310B,C,D 971-0495 2030 2030B,	Stock	Mfr's	Use With	Stock	Mfr's	Use With
	No.	Type	Terminal	No.	Type	Terminal
971-0487 2000 2000B,C 971-0507 2510 2510B,						2010B,C,D 2030B,C, 2510B,C



STANDARD TERMINALS

Include hollow lug, bifurcated, turret, feed-through types. Terminals per QQ-B-626, composition 22, ½ hard. Silver-plated per QQ-S-365 Type 111. Tarnish-resistant coatings of dichromate, water-dip lacquer, waxes. Packed in vapor-resistant cellothene plastic. Wt. per pkg/100, 2 oz.

Otrol	006-1-	St	ank	PER PKG./100				
Stock No.	Mfr's Type	Dia. Inches	Lgth. Inches	1-	10- 24	25- 99	100- Up	
971-0306 971-0307	1200B 1200C	.114	.105 .135	4.84	3.87	3.23 3.23	2.77	
971-0312 971-0315	1250C	.114	.135	6.18	4.95 2.55	4.12	3.53 1.82	
971-0316	1280B	.091	.105	3.18	2.55	2.12	1.82	
971-0317 971-0318 971-0336	1280C 1280D 1300B	.091 .091 .114	.135 .165 .105	3.18 3.18 5.25	2.55 2.55 4.20	2.12 2.12 3.50	1.82 1.82 3.00	
971-0337 971-0338	1300C 1300D	.114	.135 .165	5.25 5.25	4.20 4.20	3.50 3.50	3.00	
971-0356 971-0357 971-0358 971-0488 971-0489	1310B 1310C 1310D 2000B 2000C	.114 .114 .114 .063 .063	.105 .135 .165 .084 .115	8.09 8.09 8.09 4.03 4.03	6.47 6.47 6.47 3.22 3.22	5.40 5.40 5.40 2.68 2.68	4.62 4.62 4.62 2.30 2.30	
971-0491 971-0492 971-0494 971-0496 971-0498	2030B	.063 .063 .063 .062 .126	.084 .115 .084 .084 .105	3.04 3.04 4.39 2.71 6.60	2.43 2.43 3.51 2.17 5.28	2.02 2.02 2.93 1.81 4.40	1.73 1.73 2.51 1.55 3.77	
971-0499 971-0505 971-0506 971-0509	2500C 2500D 2510B	.126 .091 .091 .073	.165 .115 .147 .084	6.60 4.71 4.71 4.13 4.13	5.28 3.77 3.77 3.30 3.30	4.48 3.14 3.14 2.75 2.75	3.77 2.69 2.69 2.36 2.36	
971-0510	2510D	.073	.147	4.13	3.30	2./3	2.30	



PLUG-IN MOLDED HOUSINGS

Octal headers fit std. sockets. Guide hole tapped 8-32 for terminal board mtg. stud. Polystyrene housings for use to 170°F. Nylon, 300°F. Sm.: 13%" sq. x 113%" H. Extra 113%" K. 23%" H. Extra 115% X. 23%" H. Shipping weights: small, 1 oz.; Others, 2½ oz.

						EACH	
Stock No.	Mfr's Type	Size	Hous Materia		1-9	10- 24	25- Up
839-3364	664	Small	Nylon	White	1.25	1.00	.83
839-3365	665	Small	Poly.	Clear	.98	.78	.65
839-3343	643	Small	Poly.	Black	1.00	.80	.67
839-3368	668	Large	Poly.	Clear	1.28	1.82	.85
839-3377	677	Large	Poly.	Black	1.33	1.06	.88
839-3339	639	X-Lge.	Poly.	Clear	1.80	1.44	1.20

TERMINAL BOARDS FOR PLUG-INS

Glass epoxy terminals boards for housings above. Holes are .062" dia., spaced in .100" and 200" alternates. 8-32 threaded stud eyeletted to board for simple assembly with headers. G-10 glass epoxy boards are V_{16} " thick; per **GEE MIL-P-1877.** Wt. 1 oz. 8



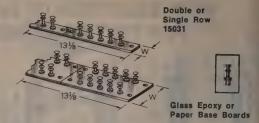
		Board	For	EACH			
Stock	Mfr's	Size	Housing	1-9	10-	25-	
No.	Type	with stud	Size		24	Up	
839-3397	697	1 1/2 x 1 3/4	Small	.28	.22	.18	
839-3398	698	1 1/2 x 2 3/4	Large	.33	.26	.22	
839-3338	638	1 5/1 6 x 2 3/8	X-Lge.	.38	.30	.25	

"IMPACT" STAKING KIT Assemble Term Boards, Printed Circuits



Boards, Printed Circuits

Model 1707. Produces light or
heavy blow, adj. by turning spring
tension cap. Uniform striking action is attained by pressing down
handle. Interchangeable tools for
various assemblies. Simple, automatic one-hand operation. Stakes
all dia. to ½2" max. Kit includes:
anvil holder; impact handle; plus
11 interchangeable tools. With
complete instructions. Wt. 1 lb.
839-3433. 1-4.....Each 28.00
5-Up......Each 23.50



SCORED TURRET TERMINAL BOARDS

Standard terminal boards with double turret terminals on one side. Brass terminals per QQ-B626, comp. 22, ½ hard; hot dip solder finish per MIL-F-14072, Type 221. Boards are scored for separation into 5 sections, each 25½" long, with .120" dia. mounting holes in each section. PBE = paper base electrical board. MIL-P-3115C, for temp. up to 250°F. GEE = G-10 Glass Epoxy boards per MIL-P-18177, for 300° F max. All are ½" thick with double row of terminals (50 total) on ½" centers except Type 15031, with single row of 25 terminals. All boards are 13½" long. Wt. 3 oz.

			Spacing		EACH			
Stock No.		Between Rows Inches	Mate- rial	1-9	10- 24	25- Up		
839-3450 839-3455 839-3468 839-3452 839-3465	15036 15236 15033	1½ 1½ 1½ 2 2	13/18 13/18 13/18 11/2 11/2	PBE GEE PBE	5.83 4.28	1.38 3.34 4.66 3.42 5.36	2.78 3.88 2.85	

ALL-PURPOSE HAND PUNCH

Model 1330. Versatile hand punch features adjustable gauge for use as a nibbler. 11/4" throat depth. Penetrates 1/6" untempered metal, 3/2" phenolic or 1/4" masonite. Punches tubing small as 3/4" diameter. 839-3405. 1-4 Ea. 20.83 5-Up Ea. 17.00

TERMINAL BOARD PROTOTYPE KIT



Model 1723. Complete assortment of basic materials, stacking tools for construction of $\frac{1}{16}$, $\frac{1}{32}$ thick terminal boards. Includes blank, pre-punched boards; assorted hardware; complete terminal staking tool kit. Full instructions. 3 lbs. 839-3437. 1-4...... Each 22.00 5-Up Each 17.00

TERMINAL BOARDS





"E" is scored to separate into 5 sections of 10 terms Each section has 4 mtg. holes. "F" has grounding strap in ctr, mounts on 1/4" stand-offs with 3-48 tapped hole Types 1180, 1182, .062" thick. Series 1100, .094"; .116" mtg. holes. Series 2200, .062", .062" mtg. holes. 1100, 2200 are phenolic; 1180, 1182 are glass melamine. *Distance between terminal rows. Wt. 4 oz.

Stock	Mfr's Fig.		No. of	Size	Term Dist.*	EACH *	
No.	Type		Term.	Inches	Inches	1-9	10-Up
971-0292	1100B	EEE	50	2x13.12	1½	6.13	4.90
971-0293	1100C		50	2½x13.12	2	6.48	5.18
971-0294	1100D		50	3x13.12	2½	6.85	5.48
971-0501	2200C	F	50	1x7.81	7/4	5.55	4.44
971-0301	1180		8	.719x.88	1/2	1.43	1.14
971-0303	1182		8	1.16x1.5	1/6	1.43	1.14

ATTENTION PURCHASING AGENTS

Make Allied your one-stop headquarters for all your industrial needs. Pay OEM factory prices, slash handling expenses and reduce paperwork in purchasing and receiving. You place one order, receive one shipment and make one disbursement. Depend on Allied for prompt, same-day delivery.

Assorted Binding Posts

DUAL BINDING POSTS

Have solder studs. Mount in two $\frac{1}{2}''$ holes in $\frac{1}{16}''$ to $\frac{1}{4}''$ panels. $\frac{1}{4}\times1\frac{1}{2}''$ base. Types 224 and 269 are 5-way; include 4 hex nuts and 2 flat washers. Type 224 has black, insulated, fluted heads. Type 269BB has black, hex-grip, insulated heads. Type 269BB, but has one red and one black head.

MINIATURE BINDING POSTS. Mount in two ¼" holes (on ½" centers) in up to ¼" panels. Accept miniature banana plugs. 0.080 phone tips, #6 spade lugs. Solder turret. Type 3016BB has black color heads. Type 3016RB as above but one red, one black. Shpg. wt. 4 oz.

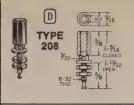
Stock Mfr's		Fig. Mtg		Color	EACH			
No.	Туре	rig.	Ctr.		1- 24	25- 49	50- 99	100- Up
920-0267 920-0325 920-0326	224BB 269BB 269RB	B B	3/4" 3/4" 3/4"	Black/black Black/black Red/black	1.15 1.55 1.55	.92 1.24 1.24	.77 1.04 1.04	.66 .89 .89
920-2816 920-2817	3016BB 3016RB	C	1/2" 1/2"	Black/black Red/black	1.22 1.22	.97 .97	.81 .81	.69 .69

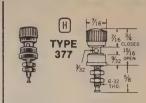
SINGLE-TYPE BINDING POSTS

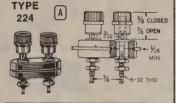
For a wide variety of uses. All are rated 2000 volts at 30 amperes. Types 257, 220, and 260 have banana-plug jack in head—also accept phone-tip plug, spade lug, alligator clip, and wire strand. Type 208 accepts banana plug. Metal parts are brass, insulated front panel, except Types 220 and 377, which are grounding type. Types 257, 377, and 378 take direct solder connection to stud. Type 208 has wrap-around solder stud and 6-32 thread. Types 257 and 260 are both equipped with a locking edge. Type 3015 MINIATURE fluted binding post; captive nylon %" head. Heavy-duty construction of all types for extra reliability in industrial applications. Average wt. 2 oz.

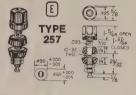
					EACH			H	
Stock No.	Mfr's Type	Fig.	Mtg. Hole	Lgth. (Closed)	Color	1- 99	100- 299	300- 499	500- Up
920-0228 920-0312 920-0256 920-0257	208 257 220 220		11/64" 1/2" 11/64" 11/64"	15/16" 143/64" 11/4" 11/4"	Metal Black Red Black	.54 .81 .38 .38	.43 .65 .30	.36 .54 .25	.31 .46 .22
920-0315 920-0316 920-0477 920-0478	260 260 377 377	GGHH	5/18" 5/18" 11/64"	1 ¹¹ / ₁₈ " 1 ¹¹ / ₁₈ " 1 ³ / ₈ "	Red Black Red Black	.74 .74 .74 .74	.59 .59 .59	.50 .50 .50 .50	.42 .42 .42 .42
920-0479 920-0480 920-2814 920-2815	378 378 3015 3015	JKK	23/64" 23/64" 1/4" 1/4"	13/4" 13/4" 15/16" 15/16"	Red Black Red Black	.74 .74 .81 .81	.59 .59 .65	.50 .50 .54 .54	.42 .42 .46 .46

ALLIED SINGLE AND DUAL BINDING POSTS **FOR EVERY APPLICATION**

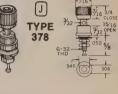






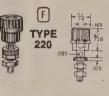


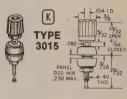


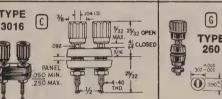


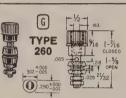
















L TYPE 110 BINDING POST

TYPE 459 NYLON BINDING POST

Fluted head post with head post and washer per MIL-P-20693A. Rated 30 amps AC for 10° temperature rise, continuous duty. Working voltage, 2kV at 60 Hz. Accepts phone the age, 2kV at 60 Hz. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand. Mounts in ½" hole. Av. shpg. wt. 2 oz.



		EACH					
Stock No	. Color	1-99	100-249	250-499	500-Up		
920-056: 920-056		.81 .81	.65 .65	.54 .54	.46 .46		
	,						

TYPE 3017 BINDING POST

For miniaturized equipment. Mounts in ¼" "D" punched hole without hardware. "Memory" characteristic of Teffon locks unit in hole after insertion, and "D" Flat prevents rotation. Accepts 0.080" phone tip, #6 spade lug, miniature banana plug, alligator banana plug, alligator clip or wire. Wrap-around solder turret. Captive



head, molded nylon per MIL-P-20693A. Gold-plated brass insert, body. Virgin Tefon washer body, per MIL-P-19468. 5A AC for 10°C rise, continuous duty. 1kV, 60 Hz AC, continuous working voltage. 2.5 pF cap. Shpg. wt. 2 oz.

Stock No.		EACH			
	Color	1-99	100-299	300-Up	
920-2820	Black	.95	.76	. 63	

BINDING POSTS

Take up to No. 12 wire through center hole or clamped and looped around shaft. Goldplated. Hex-nut types have durable nylon plastic insulator. Meets MIL-P-20693 specs. except GP30NC which is nickel-plated grounding-type post. All are rated 30 amps at 1000 volts. Mount in ½-½" panels, ½" mounting hole. 2¾,4×½" dia. Wt., 2 oz.



11211101 11120									
Stock No.	Туре	Color	Stock No.	Type	Color				
930-0529 930-0523 930-0527 930-0519	DF30YC DF30GNC DF30WTC DF30BC	Yellow Green White Black	930-0525 930-0521 930-0549	DF30RC DF30BLC GP30NC	Red Blue Nickel				
1 24 E	noh OF	05 00 I	TC 10	O IIIn E	ah EE				

FLUTED-NUT TYPES

930-0531	DF31BC	Black	930-0537	DF31RC	Red		
930-0533	DF31BLC	Blue	930-0539	DF31WTC	White		
930-0535	DF31GNC	Green	930-0541	DF31YC	Yellow		
1-24Each .95 25-99Each .76 100-UpEach .55							

MINIATURE FLUTED-NUT TYPES

Rated 15 amps at 1000 V. Current-carrying parts are gold-plated brass. Plastic parts are of durable nylon. Meet Mil-P-20693, Type IV specs. For ½-½" panels. Mount in ½" hole. 12½2x¾,6" diameter. Shpg. wt. 2 oz.

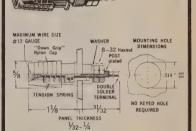
930-0507 930-0509 930-0511	DF21BC DF21BLC DF21GNC	Black Blue Green	930-0513 930-0515	DF21RC DF21WTC	
1-24Ea	ch .95	25-99E	ach .76 10	0-Up Ea	ch .55

AC DUAL-ADAPTER BINDING POST

TYPE DAP15BWC. Designed to facilitate line voltage connections from output receptacles voltage connections from output receptacies to binding posts. Accepts spade lugs, banana plugs, clip leads, up to #12 wire thru .098" diameter holes, or wire wrapped around shafts. Rated 15 amps at 125 volts. White and black thumbnuts with black body. Wt. 3 oz. 930-0505. 1-24. Ea. 3.00 25-Up. Ea. 2.40



"ADLOC" BINDING POSTS



- Simple "Push-Down" Contact Action
- Rugged Brass Nickel-Plated Post, Nylon Plastic Insulator
- · For Wire, Lugs, Plugs, More

Simple, yet versatile design suitable for a wide variety of commercial and industrial applications. Push down on top, insert wire (up to 12 gauge), release and positive contact is made instantly. Also for spade lugs, plugs, clamps and prods. Has a brass nickelplated post, nylon plastic insulator. Rated 20 amps at 1000 volts, rms. For 314" hole in panels ½2" to ¼4". Dimensions, 2½x3%%". In table below, suffix "B" in Mfr's Type indicates Black color; suffix "R" indicates Red color. Ship. wt. 3½ oz.

		EACH			
Stock	Mfr's	1-	25-	100-	
No.	Type	24	99	Up	
721-0031	AL2000B	1.20	.96	.80	
721-0032	AL2000R	1.20	.96	.80	

Plugs, Jacks and Binding Posts

TIP JACKS AND PLUGS



105-0803

105-0253

105-0202

105-0603

105-0303

STANDARD TIP JACK. Tough, low-loss molded body. Capacity to $\frac{1}{6}$ " metal panel is only 2.0 pF; voltage breakdown test is 9,000 volts DC. Has formed cadmium-plated phosphor bronze contact. Current rating; 10 amps. Supplied with $\frac{1}{4}$ "-32 nut for mounting in $\frac{1}{16}$ " diameter hole or double-flat keyed hole. $\frac{1}{22}$ x $\frac{3}{6}$ " diameter. 2 oz.

Stock No.	Mfr's Type	Color	EACH				
			1- 49	50- 99	100- 499	500- Up	
828-0163 828-0164 828-0165 828-0166 828-0167 828-0168	105-0801-001 105-0802-001 105-0803-001 105-0804-001 105-0807-001 105-0810-001	White Red Black Green Yellow Blue	.20 .20 .20 .20 .20 .20	.16 .16 .16 .16 .16	.14 .14 .14 .14 .14	.10 .10 .10 .10 .10	

STANDARD METAL-CLAD TIP JACK. Shock-proof polymide and metal construction resists chipping or cracking. Highly resistant to extremes of heat, cold and moisture. Nickel-plated machined brass jacket protects nylon body. Has silver-plated phosphor bronze contact. Rated: 10 amps. Voltage breakdown is 7,000 VDC; capacity to $\frac{1}{2}$ man is 3.8 pF. With $\frac{1}{4}$ "-32 nut. Fit $\frac{11}{4}$ hole. Size: $1\frac{1}{16}$ % $\frac{1}{16}$ diameter. Wt. 2 oz.

828-0121	105-0251-001	White	.32	.26	.21	.16
828-0122 828-0123	105-0252-001	Red Black	.32	.26	.21 .21	.16 .16
828-0124	105-0253-001	Green	.32	.26	.21	.16
828-0125	105-0257-001	Yellow	.32	.26	.21	.16
828-0126	1 105-0260-001	Rise	.32	1 .26 L	.21	.16

MIL TYPE METAL-CLAD TIP JACK. MS-16108, rev. F and M-C-39024/10 type jack. Body is protected by nickel-plated, machined brass jacket—resists chipping or cracking under hardest usage. Has gold-plated, beryllium copper contact, and brass terminal end closed entry feature. Current rating: 5 amps; voltage break-down: 8,000 VDC. Capacity to ½" metal panel is 3.8 pF. With nickel-plated bronze lock washer and ½"-32 nut for ½" hole. Size: ½x2½x" diameter. Shpg. wt. 2 oz.

732.	732					
828-0115	105-0201-200 105-0202-200 105-0203-200	Red	.54 .54 .54	.43 .43 .43	.34 .34 .34	.27 .27 .27

DELUXE TIP JACK. Capacity to $\frac{1}{8}$ metal panel 2.0 pF. .081" tip. Silver-plated beryllium copper contacts. Body threaded $\frac{1}{4}$ "-32 for single nut mounting. With $\frac{1}{4}$ "-32 nut for mounting in $\frac{1}{4}$ " meter hole. Rated: 10 amps. Voltage breakdown: 11,000 volts. Size, $\frac{2}{3}$ 12 x $\frac{3}{8}$ ". Shpg. wt. 2 oz.

828-0139	105-0601-001	White	.34	.27	.23	.17
828-0140	105-0602-001	Red	.34	.27	.23	.17
828-0141	105-0603-001	Black	.34	.27	.23	.17
828-0142	105-0604-001	Green	.34	.27	.23	.17
828-0143	105-0607-001	Yellow	.34	.27	.23	.17
828-0144	105-0610-001	Blue	.34	.27	.23	.17

STANDARD AND SUBMINIATURE TIP PLUGS. Completely Insulated. Recessed head. Metal parts are nickel-plated brass. Standard: for solderless connection of up to No. 16 stranded wire; 10-amp rating. Pin size, \%'x.080" diameter. Body, \%'x.3\%' diameter. Body, \%'x.3\%' and standard connection; 10-amp. .0080". Pin, .080"x.2\%'4" diameter. Body, \%\%\%\%'. Shpg. wt. 2 oz.

828-0127 828-0128 828-0129 828-0130 828-0131	105-0301-001 105-0302-001 105-0303-001 105-0304-001 105-0307-001	White Red Black Green Yellow	.28 .28 .28 .28 .28	.22 .22 .22 .22 .22	.19 .19 .19 .19	.14 .14 .14 .14 .14	
828-0132 828-0145 828-0146 828-0147	105-0310-001 105-0771-001* 105-0772-001* 105-0773-001*	Red	.34 .34 .34	.28 .28 .28	.23 .23 .23	.17 .17 .17	

SLEEVE AND JACK ASSEMBLY. Includes tip Jack, less mounting nut, in an inside threaded, insulating sleeve. Ideal for patch cords and panel mountings where an insulated rear connection of a tip Jack is desired. Voltage breakdown: 8,000 volts. Size: 11/4x 3/4" diameter. Shpg. wt. 3 oz.

828-0157 10 828-0158 10 828-0159 10 828-0160 10	5-0702-001 5-0703-001	White Red Black Green	.45 .45 .45 .45	.36 .36 .36 .36	.30 .30 .30 .30	.23 .23 .23 .23
--	--------------------------	--------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

RIB-LOC PRESS-IN TIP JACK. Accepts .080" top plug in closed entry contact. Low-loss polyamide insulating body. Rating: 10 amps. Peak voltage, 5,000 volts. Mounts in .172" hole in panel up to $\frac{1}{6}$ " thick. Overall length, .700". Wt. 2 oz.

.18	.14
18	.14
.18	.14
	.14
	.14
.18	.14
	.18

STACKING .080 STANDARD TIP PLUGS. Rating: 10 amps. Developed for custom patchcord assembly and replacement of damaged molded patchcord plugs. Allow assembly of patchcords with any length and color. Used with standard 0.144" diameter rubber or extra-flexible polyvinyl insulated wire. Plug body precision machine brass with 0.0002" nickel plating. Polyamide housing. Temp. range: —55° to +105°C.

Stock	Mfr's	Color		CH			
No.	Type		1-49	50-99	100-499	500-Up	
828-3000 828-3001 828-3002 828-3003 828-3004 828-3005	105-1201-001 105-1202-001 105-1203-001 105-1204-001 105-1207-001 105-1210-001	White Red Black Green Yellow Blue	.64 .64 .64 .64 .64	.51 .51 .51 .51 .51 .51	.43 .43 .43 .43 .43	.32 .32 .32 .32 .32 .32	



7/8 17/32 17/5 - 3/8 D.

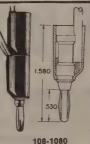
108-0303

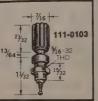
1/6 50 +00.1 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2













BANANA JACKS AND PLUGS

STANDARD BANANA JACK AND PLUG. Low-loss body. Capacity to % metal panel. 2.4 pF. Breakdown test 10,000 VDC. Jack has cadmium-plated insert. Supplied with %-32 nut for mounting jack in %4" diameter hole. Solderless connection takes up to No. 16 stranded wire. Length: jack, 1%6"; plug, 1%6". Average shpg. wt. 2 oz. *Jack, †Plug.

01	804-1-			EA	СН	
Stock No.	Mfr's Type	Туре	1- 49	50- 99	100- 499	500- Up
828-0232 828-0233 828-0234 828-0235 828-0236 828-0237	108-0901-001* 108-0902-001* 108-0903-001* 108-0904-001* 108-0907-001* 108-0910-001*	White Red Black Green Yellow Blue	.19 .19 .19 .19 .19	.15 .15 .15 .15 .15	.13 .13 .13 .13 .13	.10 .10 .10 .10 .10
828-0212 828-0213 828-0214 828-0215 828-0216 828-0217	108-0301-001† 108-0302-001† 108-0303-001† 108-0304-001† 108-0307-001† 108-0310-001†	White Red Black Green Yellow Blue	.37 .37 .37 .37 .37	.30 .30 .30 .30 .30	.25 .25 .25 .25 .25 .25	.19 .19 .19 .19 .19

SOLDERLESS DUAL BANANA PLUG. Shock resistant insulating body—retains strength. Provides strain relief to wire leads. Plug springs are nickel-silver. Body is nickel-plated, machined brass. Brass studs extend full length of plug plns. 3/4 pin spacing. 15 amps; plug to plug capacity: 1.3 pF; voltage breakdown: 10,000 VDC. Size: 11/3/2 long. Shpg. wt. 2 oz.

828-0200 108-0201-001 White 1.19 .96 .80 828-0201 108-0202-001 Red 1.19 .96 .80	
828-0201 108-0202-001 Red 1.19 .96 .80 828-0203 108-0203-001 Black 1.19 .96 .80 828-0203 108-0204-001 Green 1.19 .96 .80 828-0204 108-0207-001 Yellow 1.19 .96 .80 828-0205 108-0210-001 Blue 1.19 .96 .80	.60 .60 .60 .60

NON-INSULATED PLUGS AND JACKS. 740 nickel-plated brass jack, with solder terminal and nut. 760 for jumbo plugs, with solder terminal and nut. 740 requires 1½" diameter mounting hole; 760, ½½". 750, 750-2, 753, 770 and 771 are banana plugs. Have brass studs. 770 and 771 are jumbo types; 770 plugs have long screw for mounting on ceramic or steatite plug-in coll forms. Wt. 2 oz.

Charle	304010	EACH		СН			
Stock No.	Mfr's Type	ype	Lgth.	1- 49	50- 99	100- 499	500- Up
828-0221	108-740-001 108-750-001 108-750-002	750, 750-2, 753 740 740	5/8" 1½" 1½"	.23 .33 .34	.19 .26 .27	.16 .22 .23	.12 .18 .17
828-0227 828-0228	108-753-001 108-760-001 108-770-001 108-771-001	740 770, 771 760 760	15/16" 1" 1 ²⁵ / ₃₂ " 1 ¹ / ₈ "	.36 .79 .66 1.05	.29 .63 .53 .84	.24 .53 .44 .70	.18 .40 .33 .52

SUBMINIATURE VERTICAL JACKS. Rated at 5 amps. Operating voltage, 1500 volts. Contact resistance less than 2 milliohms. Body material, low-loss polyamide, metts MIL-M-20693A specs. Beryllium copper contact for firm contact. Sliver plated. % long, % diameter. Mounts in single .052" hole. 2 oz.

Stock	Mfr's	Color	EACH			
No.	Туре	Color	1-49	50-99	100-499	500-Up
828-0169 828-0170 828-0171 828-0172 828-0173 828-0174	105-0851-001 105-0852-001 105-0853-001 105-0854-001 105-0857-001 105-0860-001	White Red Black Green Yellow Blue	.21 .21 .21 .21 .21 .21	.17 .17 .17 .17 .17	.14 .14 .14 .14 .14	.11 .11 .11 .11 .11

STACKING STANDARD BANANA PLUGS. Rating: 10 amps. Developed for custom patchcord assembly and replacement of damaged molded patchcord plugs. Allow assembly of patchcords with any length and color. Used with standard 0.144" diameter rubber or extra-flexible polyvinyl insulated wire. Plug body precision machine brass with .0002" nickel plating. Polyamide housing. Temp. range: —55° to +105°C.

828-3011	108-1081-001	White	.55	.44	.37	.28
828-3012	108-1082-001	Red	.55	.44	.37	.28
828-3013	108-1083-001	Black	.55	.44	.37	.28
828-3014	108-1084-001	Green	.55	.44	.37	.28
828-3015	108-1087-001	Yellow	.55	.44	.37	.28
828-3016	108-1090-001	Blue	.55	.44	.37	.28

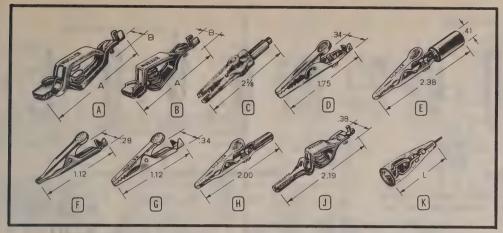
SERIES 111-1 and 111-2 SIX-WAY BINDING POSTS. Series 111-1. Std. 15A. Accepts standard banana plug. Breakdown 8,000 VDC $\%_0^{*-3}$ 2 nut mounting in $\%_4$ " diameter round, "D" or double-flat hole. 1 $\%_4$ " long, $\%_6$ " diameter. Series 111-2, Miniature. Accepts .080 tip plug. 15A. Breakdown, 5,000 VDC. 1/4"-32 nut mounting in 1/4/4" diameter round, "D" or double-flat hole. 1 $\%_6$ " long, $\%_6$ " diameter.

011	Mfr's Type	Color	EACH				
Stock No.			1- 49	50- 99	100- 499	500- Up	
828-0302 828-0303 828-0304 828-0305 628-0306 828-0307	111-0101-001 111-0102-001 111-0103-001 111-0104-001 111-0107-001 111-0110-001	White Red Black Green Yellow Blue	.57 .57 .57 .57 .57	.46 .46 .46 .46 .46	.38 .38 .38 .38 .38	.28 .28 .28 .28 .28 .28	
828-0309 828-0310	111-0202-001 111-0203-001	Red Black	.90 .90	.72 .72	.60 .60	.49	



± 1/64

105-1043



3-SIDED MESH-TEETH CLIPS

Scadmium-plated steel; *solid copper; †with insulation-piercing needle. #Wt. per 100 pieces. Dim: A, see listing; B, .38".

Stock	Mfr's.		Size	#Wt.	EACH		
No.	Type	Amps	A	Lbs.	1- 99	100- 499	500- Up
860-0036 860-0044 860-0046 860-0097 860-0099 860-0105 860-0107	\$25 \$27 *27C \$48B *48C *150C	40 20 40 10 20 20 20	3" 2½16" 2½16" 2" 2" 2½" 2½"	6 3½ 3½ 2 2½ 2½ 2½ 2½	.27 .19 .36 .16 .25 .58	.21 .15 .29 .13 .20 .47	.18 .13 .24 .11 .17 .39

"PEE-WEE" TEST CLIPS

Mesh-teeth type for general purpose use. Type 45C, solid copper. Type 45, cadmium-plated steel. Dlm:

860-0085 860-0087	45 45C	5 10	1½"	1 1 1 1 1 1 1 1 1 1 1 1	.12	.10 .16	.08

HEAVY-DUTY SOLID COPPER CLIPS High-conductivity, solid copper clips. Handle current loads up to 200 amps. Lbs./100 pcs.: *6¾, †18, §41.

Stock	Mfr's.			Size			
No.		Amps Marking		A	1- 99	100- 499	500- Up
860-0036 860-0025 860-0026 860-0009	*25C †21C †21C \$11C	75 100 100 200	unmarked plus sign unmarked unmarked	3" 4½" 4½" 6"	.62 2.10 2.10 4.15	.50 1.68 1.68 3.32	.41 1.40 1.40 2.76

LEAD-PLATED BATTERY CLIPS

For moderately heavy current loads, Incl. battery charging, electroplating, light welding. Lead-plated el for protection and long life. Wt./100 pcs.: *614,

860-0032 860-0034 860-0021 860-0023 860-0005	*24A *24A †21A †21A \$11A	25 25 50 50 100	plus sign unmarked plus sign unmarked unmarked	2%" 2%" 4" 4" 6"	.35 .35 .63 .63 2.90	.23 .23 .42 .42 1.93	.20 .20 .36 .36
--	---------------------------------------	-----------------------------	--	------------------------------	----------------------------------	----------------------------------	--------------------------

INSULATED ALLIGATOR CLIPS

SCadmium-plated steel; "solid copper. Insulated with vinyl to protect against shocks & shorts. Wt./100 pcs., 134 lbs.

Stock	Mfr's.	1			EACH		
No.	Туре	Amps	Marking	Size	1- 99	100- 499	500- Up
860-0139 860-0137 860-0143 860-0141	\$63 \$63 *63C *63C	5 5 10 10	Red insul. Blk. insul. Red insul. Blk. insul.	2½" 2½" 2½" 2½"	.48 .48 .85	.38 .38 .68	.32 .32 .56

70 SERIES ALLIGATOR CLIPS

No. 70, cadmium-plated steel, solder connection; No. 70S, cadmium-plated steel, screw connections. No. 70CS, solid copper, screw connection. 1 lb. per 100.

Stock	Mfr's. Type	Amps	Barrel		EACH		
No.			Color	Size	1- 99	100- 499	500- Up
860-0150 860-0154 860-0152	70 70S 70CS	5 5 10		1 ¹ / ₁₆ " 1 ¹ / ₁₆ " 1 ¹ / ₁₆ "	.10	.08	.07

INSULATED-BARREL ALLIGATOR CLIPS

are sol	id copp	er. Jaw	s open %6"	. 1½ II	bs. pe	oes o	pcs
860-0123 860-0121 860-0117 860-0115	60HS 60CHS		Black Red	2 ¹¹ / ₃₂ " 2 ¹¹ / ₃₂ " 2 ¹¹ / ₃₂ " 2 ¹¹ / ₃₂ "	.24	.19	.16

"MICRO-GATOR" CLIPS

Similar to "Mini-gators" but with tiny tip for clipping to small terminals, and as heat sink. §Cadmium-plated

steer; *copper.										
860-0062 860-0064	§34 *34C			1 ³ / ₃₂ " 1 ³ / ₃₂ "	.08 80.	.06	.05 .07			

"MINI-GATOR" CLIPS

MINI-GAIOR" CLIPS

(i) Ideal for testing all types of miniature and subminiature equipment. %," jaw opening. 1½," I.D. tip when used with insulator. Type 30, cadmium-plated steel; Type 30C, solid copper, for #20 or smaller wire. Shpg. wt., ½ lb. per 100.

Stock	k Mfr's.			EACH				
No.	Туре	Amps	Size	1- 99	100- 499	500- Up		
860-0052 860-0054	30 30C	5 10	1½s" 1½s"	.10 .12	.08 .10	.07		

60 SERIES ALLIGATOR CLIPS

Steel, except 60CS, solid copper. *Insulation-piercing needle. Fit banana plugs. Jaws open $\%_6$ ". 2" long. 60PR2 has barrel crimped for friction fit on std. phone tip; banana plug, test prod tip. 1 ib. per 100.

Stock	Mfr's.		EACH			
No.	Туре	Description	1- 99	100- 499	500- Up	
860-0113 860-0129 860-0119 860-0126 860-0127	60 60S 60CS *60NS 60PR2	Solder Screw Screw Screw Crimp	.13 .16 .20 .36	.11 .13 .15 .29	.09 .10 .13 .24	

CROCODILE CLIPS

Cadmium-plated steel, except Type 85C is solid copper. Type 85T has phone tip on one jaw. Wt. 11/2 lbs.

61 100.				
860-0167	85	2½" Screw Conn	.12	.10
860-0169	85C	2½" Screw Conn	.22	.16
860-0171	85T	2½" Tip-Clip	.39	.32

SLIP-ON INSULATORS FOR CLIPS

Tough, flexible vinyl insulators for above clips. Offer high dielectric strength; resistant to olls and grease. Cover entire clip except for end of nose. Av. wt. 1 oz.

-					EACH	
Stock No.	Mfr's Type	Color	With Series	1- 99	100- 499	500- Up
860-0015 860-0013 860-0030 860-0028	13 13 23 23	Red Black Red Black	11 11 21 21	1.30 1.30 .64	1.04 1.04 .51 .51	.86 .86 .43
860-0042 860-0040	26 26	Red Black	24, 25 24, 25	.45 .45	.36 .36	.43 .30 .30
860-0050 860-0048 860-0058 860-0056 860-0070	29 29 32 32 36	Red Black Red Black Red	27 27 30 30 34	.17 .17 .06 .06	.14 .05 .05	.11 .04 .04
860-0068 860-0095 860-0093 860-0103 860-0101	36 47 47 49 49	Black Red Black Red Black	34 45 45 48, 50 48, 50	.06 .08 .08 .13	.05 .06 .06 .10	.04 .05 .05 .08
860-0135 860-0133 850-0160 850-0158 860-0177 860-0175	62 62 72 72 72 87 87	Red Black Red Black Red Black	60, 70 60, 70 70 70 85 85	.06 .06 .06 .06 .08	.04 .04 .04 .04 .05	.03 .03 .03 .03 .04

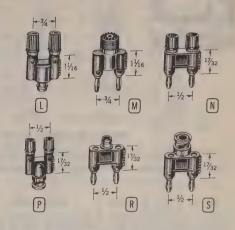
"HIPPO" & "PIGMY HIPPO" CLIPS

Strong full-channel-constructed plier clips with two vinyl insulating sleeves. Full-size handles. Type 41A standard "Hippos": 6" long, 1%" jaw opening. Type 45A "Pigmy-Hippos": 3" long, 1%" jaw opening. Wt. per 100, *41 lbs.; †5¾ lbs.



Stock	Mfr's	Amps	Sleeve	Marking	E/	CH
No.	Туре	Amps	Color	marking	1- 99	100- Up
860-0077 860-0079 860-0089 860-0091	41A° 41A° 46A† 46A†	100 100 50 50	Black Red Black Red	minus sign plus sign unmarked unmarked	1.03 1.03 .29	.82 .82 .23 .23

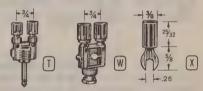
DUAL INSTRUMENT ADAPTERS



Excellent quality male, female dual binding post adapters. Insulated 5-way binding posts for efficient, reliable service in an infinite amount of applications. Come with red and black heads on %" centers except *½" centers. Banana jack holes are provided for side stacking. Packages of 1. Strong molded butyrate body to resist breakage or splitting that often occurs due to temperature variations. Brass conductor; beryllium copper spring, molded nylon head. Ratings: Current is 15 amps (*5 amps) AC for 10°C, rise is continuous duty except where limited by coaxial connectors; voltage is 5 kV (*2 kV) 60 cycle AC. Av. shpg. wt. 1 oz.

Stock	Mfr's	Ein	Front		EA	CH	
No.	Type	rıy.	Connection	1-9	10- 24	25- 99	100- Up
920-1789 920-1782 920-1788	1682	L D	NC/female ual bananas NC male	3.04	2.43	4.14 2.03 4.14	1.74
920-1790 920-1797 920-1865	1697	MBI	HF female to banana NC female to dual banana ind. post to dual banana	12.15	9.72	4.14 8.10 2.03	6.94
920-1866 920-1867 920-1868 920-1869	1757° 1758°	P Bi	nd. post to BNC male nd. post to BNC female NC female to banana NC male to banana	6*21 4.05	4.97	4.14 4.14 2.70 3.56	3.55 2.31

PHONE, BINDING-POST AND LUG ADAPTERS



- MODEL 1285. Phone plug adapter. Adapts phone jack to 34" spaced binding posts. Thermoplastic body. Shpg. wt. 3 oz.
- MODEL 1296. Binding-post adapter. Adapts BNC receptacle to 34" centers binding posts. Thermoplastic body. Wt. 3 oz.
- MODEL 1614. Insulated spade lug adapter. Nickel-plated brass. 15 amps cont. 5000 VDC.-25°C to 85°C. Shpg. wt. 2 oz.

Stock				EA	CH	
No.	No.	Color	1-	10- 24	25- 99	100- Up
885-0283 885-0289 885-0398 885-0398	1285 1296 1614 1614	Black Black Black Red	9.10 9.20 .68 .65	7.28 7.36 .54 .54	6.07 6.13 .45	5.20 5.26 .39

BAR TYPE ADAPTER

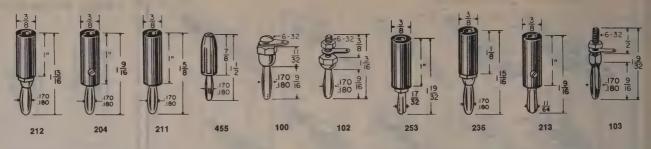


Allied® Banana Plugs and Jacks



CONNECTORS

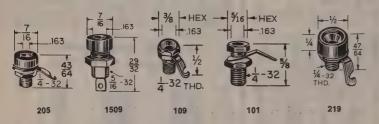




INSULATED BANANA PLUGS

Insulated banana plugs with unbreakable plastic handles. All are machined of the best materials, and inspected. Have sufficient spring tension to assure good holding power and minimum contact resistance. Average shpg. wt. 2 oz.

					EA	СН	
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up
920-0190 920-0241 920-0239 920-0240 920-0191	212 212 212 212 212 212	Red Yellow Green Blue Black	4-leaved phosphor-br. sprg. hex brass body. Sep. internal brass stud for solderless or solder connection	.45	.36	.30	.25
920-0192 920-0215 920-0213 920-0214 920-0193	204 204 204 204 204 204	Red Yellow Green Blue Black	4-leaved phosphor-br. nickel-plated sprg. Lead wire conn. with set screw thru handle.	.38	.30	.25	.22
920-0194 920-0195 920-0236 920-0234 920-0235 920-0231	211 211 211 211 211 211	Red Black Yellow Green Blue White	4-leaved phosphor-br. nickel-plated spring. Wire solders to plug or stud; or stud locks wire for solderless connection.	.38	.30	.25	.22
920-0196 920-0197	455 455	Red Black	4-leaf phosphor-bronze Nylon. Solderless.	.38	.30	.25	.22



INSULATED BANANA JACKS

Heavy-duty, molded body. Supplied with fiber washer. Shpg. wt., 2 oz

					EA	СН	
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299		500- Up
920-0200 920-0220 920-0218 920-0219 920-0201	205 205 205 205 205 205	Red Yellow Green Blue Black	Plastic head; nickel- plated brass body. For %6" hole, panels up to %" thick.	.23	.18	.15	.13
920-1521 920-1522 920-1525 920-1523 920-1524 920-1520	1509 1509 1509 1509 1509 1509	Red Black Yellow Green Blue White	Molded nylon jack. Locks into panel by means of double "D" body. For %s" hole, panel to %s".	.19	.15	.13	.11
920-0252 920-0253	219 219	Red Black	Plastic head; brass body; solder lug and mtg. nut. For 5/6" hole, pan. to %".	.27	.22	.18	.15
920-0258 920-0259 920-0262 920-0260	221 221 221 221 221	Red Black Yellow Green	Nylon head; fit 5/16" mtg. hole; for panels up to 1/4" thick.	.38	.30	.25	.22
920-0221 920-0225 920-0223 920-0224 920-0222	206 206 206 206 206	Red Yellow Green Blue Black	Plastic head; nickplated brass body; takes ban. plug or tip plug; phos bronze spring. For "" hole, up to "" panel.	.30	.24	.20	.17

NON-INSULATED BANANA JACKS

Bare brass, nickel-plated body. Fits 1/4" hole, 3/4" panel. Hex nut 2 oz

			JI. 110X	mar.	- 04.	
920-0101 920-0109		Tinned lug. With solder lug.	.23	.18	.15	.13

INSULATED BANANA PLUGS (Cont'd)

				EACH				
Stock No.	Mfr's Type	Color	Description	1- 99	100- 299	300- 499	500- Up	
920-0305 920-0306	253 253	Red Black	Split type with internal brass stud for solderless or soldered connection.	.38	.27	.23	.19	
920-0284 920-0285	236 236	Red Black	4-leaved niplated phos br. sprg. Threaded space for solderless conn.	.68	.54	.45	.39	
920-0242 920-0243	213 213	Red Black	Cross-slotted body. Lead wire conn. with set scr.	.30	.24	.20	.17	
920-0526 920-0527	426 426	Red Black	4-leaf, phos. bronze spring Nylon. Midget.	.35	.28	.23	.20	

NON-INSULATED BANANA PLUGS

Feature four-leaved, phosphor-bronze nickel plated springs. Each is supplied with terminal lug and hex nut. Shpg. wt., 2 oz.

920-0103	103	Nickel- plated	Threaded-shank type.	.38	.30	.25	.22
920-0198	100	Nickel- plated	Panel-mtg. type; 6-32 tapped body. Intern'l threads for panel use.	.38	.30	.25	.22
920-0199	102	Nickel- plated	Threaded-shank type; spring up.	.38	.30	.25	.22









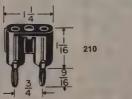
255

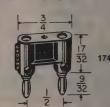
MOLDED RIGHT-ANGLE METER PLUGS

Right-angle plugs with plastic handles. Half shells assemble with one screw and nut. Lead wire solders to body. *Nickel-plated. Shpg. wt. 2 oz.

					EACH			
Stock No.	Mfr's Type	Color	// Description	1- 99	100- 299	300- 499	500- Up	
920-0307 920-0308	255 255	Black Red 5	4-leaved phosphor- bronze springs.*	.60	.47	.40	.34	
920-0280 920-0281	235 235	Black Red	Maximum wire insulation, %4".	.45	.36	.30	.25	

MOLDED DOUBLE BANANA PLUGS





Molded as single unit for banana jacks. Can be stacked for multiple connections. Molded polystyrene body per Fed. Spec. L-P416, Type 1. Nickel-plated brass plug. Takes wire to #12. 15-amp. rating. Shpg. wt. 3 oz. Type 210. Standard Black Plug. Overall, 1%" x 1%"; ¾" centers. 920-0230. 1-24 Each 1.19 25-49 Each 79 50-59 100. Un

920-0230. 1-24 Each 1.19 25-49 Each .79
50-59 Each .95 100-Up Each .68

Type 1749. Miniature Black Plug. ½" centers. Overall 11½" x 2½x" x ½".
920-1859. 1-24 Each 1.01 25-49 Each .68
50-99 Each .81 100-Up Each .58

ED Make Allied Your Source for Everything in Industrial Electronics

Patch Cords, Banana Plugs, Test Clips

BNC PATCH CORDS



Crimp male BNC connector on both ends. Comparable to UG88E/U except (*) has double banana plug one end, UG88E/U other end. Last 2 digits in Type No. indicate length in inches. Wt. 4 oz.

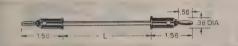
Stock	Mfr's	EACH						
No.	Type	1-9	10- 24	25- 49	50- Up			
885-0552 885-0553 885-0554 885-0555	2249-C-12 2249-C-24 2249-C-36 2249-C-48	9.55 9.55 9.55 9.55	7.64 7.64 7.64 7.64	4.63 4.63 4.63 4.63	3.82 3.82 3.82 3.82 3.82			
885-0558 885-0234"	2249-C-60 2 BC-BNC-36	9.55 11.37	7.64 9.10	4.63 6.12	3.82 4.55			

DOUBLE BANANA PLUG PATCH CORDS

36" cords with an MDP plug on each end. Type 2BA-36 is 2-conductor 18-gauge twisted wire. Type 2BB-36 is shielded microphone cable. 2BC-36 is RG58C/U shielded cable. Wt. 5 oz.

Stock No.	BH 4-1-			EAC	Н	
	Mfr's Type	Color	1-	10- 24	25- 49	50- Up
885-0208 885-0227	2BA-36 2BC-36	Gray Black	10.22 10.22	8.18 8.18	4.63 4.63	4.09

HORIZONTAL STACKING PATCH CORDS



One banana plug each end. Fit any standard banana jacks. 18-gauge stranded wire. One-piece nickel-plated beryllium copper spring. Av. wt. 4 oz.

Stock	Mfr's	Color	I -ab		EA	ın	
No.	Type	Color	In.	1- 9	10 - 24	25- 49	50- Up
885-0354 885-0355 885-0358 885-0359 885-0362 885-0363	1440-12 1440-24 1440-24 1440-24 1440-36 1440-36	Red Black Red Black	12 12 24 24 36 36	2.52 2.52 2.52 2.52 2.52 2.52 2.52	2.02 2.02 2.02 2.02 2.02 2.02 2.02	1.26 1.26 1.26 1.26 1.26 1.26	1.19 1.19 1.19 1.19 1.19 1.19

VERTICAL STACKING PATCH CORDS

Durable, extra-flexible-lead patch cords for ease of handling and long life. Gold-flashed brass pin-tip. 0.080" diameter. ½" long. Tip jacks accept 0.080" diameter pin. Extra-flexible polyvinyl-insulated wire Operating temperature, 0° C to +105° C. Rated 5 amps continuous, 10 amps intermittent. 5000 WVDC. 5 oz.

MODEL "B" BANANA PLUG PATCH CORDS

Vertical and horizontal stacking. One-piece heat-treated beryllium copper spring. Rated 15 amps continuous; 30 intermittent. 18-gauge wire. 10,000 WVDC. Shpg wt. 5 oz.

Stock	Mfr's		Lgth.		EA	CH				
No.	Type	Color	In.	1-9	10-24	25-49	50-Up			
885-0030	8-4	Black	4	3.05	2.44	1.53	1.45			
885-0031	B-4	Red	4	3.05	2.44	1.53	1.45			
285-0034	B-8	Black	8	3.05	2.44	1.53	1.45			
885-0035	B-8	Red		3.05	2.44	1.53	1.45			
885-0037	8-12	Black	12	3.05	2.44	1.53	1.45			
885-0038	B-12	Red	12	3.05	2.44	1.53	1.45			
885-0041	B-18	Black	18	3.05	2.44	1.53	1.45			
885-0042	B-18	Red	18	3.05	2.44	1.53	1.45			
885-0045	B-24	Black	24	3.05	2.44	1.53	1.45			
885-0046	B-24	Red	24	3.05	2.44	1.53	1.45			
885-0049	B-36	Black	36	3.05	2.44	1.53	1.45			
885-0050	B-36	Red	36	3.05	2.44	1.53	1.45			
885-0053	B-48	Black	48	3.05	2.44	1.53	1.45			
885-0054	B-48	Red	48	3.05	2.44	1.53	1.45			
885-0057	B-60	Black	60	3.25	2.60	1.62	1.53			
885-0058	8-60	Red	60	3.25	2.60	1.62	1.53			

BANANA PLUGS

TYPE MDP-X. Four-terminal isolation plug.

			EACH						
Stock No.	Mfr's Type	Color	1-9	10- 24	25- 49	50- Up			
885-0115	MDP-X	Red	6.30	5.04	3.90	2.52			

TYPES 1269 AND 1270. BNC receptacle and plug adapters, permit BNC connectors to be used with eqpt. having banana jacks. 1269 adapts jack to plug. 1270 adapts jack to receptacle. Wt. 4 oz.

885-0267 885-0268	1269 1270		4.20 6.12	3.25 4.62	2.34 3.36

MODEL 1325 SINGLE BANANA PLUGS



Solderless, stack-up type. Heavy-duty, positive connection. Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified. One-piece nickel plated beryllium copper spring for use with standard 0.166-in. diameter banana jack. Rated 15 amps, continuous. 5000 WVDC. Choose from a wide range of colors available from stock. Av. shpg. wt. 2 oz.

			EACH								
Stock	Mfr's	Color	1-	10-	25-	50-					
No.	Type		9	24	49	Up					
885-0301 885-0302 885-0303 885-0304	1325 1325 1325 1325	Black Red Orange Yellow	1.07 1.07 1.07 1.07	.86 .86 .86	.54 .54 .54 .54	.51 .51 .51 .51					
885-0305	1325	Green	1.07	.86	.54	.51					
885-0306	1325	Blue	1.07	.86	.54	.51					
885-0307	1325	White	1.07	.86	.54	.51					

MODEL 1825 SAFETY-TYPE SOLDERLESS BANANA PLUG. Collar eliminates shock hazard. Internal set screw. Nickel-plated beryllium copper spring. .166" dia. jack plug.

885-0460	1825	Black	1.12	.90	.54	.51
885-0462	1825	Red	1.12	.90	.54	.51
885-0463	1825	Orange	1.12	.90	.54	.51
885-0464	1825	Yellow	1.12	.90	.54	.51
885-0465	1825	Green	1.12	.90	.54	.51
B85-0466	1825	Blue	1.12	.90	.54	.51
885-0469	1825	White	1,12	.90	.54	.51

MODEL 1330 DOUBLE BANANA PLUG

Recess top mounting small components. Set screws. $\frac{34}{7}$ spacing. Stacking jacks at top. Shpg. wt. 5 oz.

Stock	Mfr's	Color	EACH							
No.	Турв		1- 9	10- 24	25- 49	50- Up				
885-0311 885-0312	1330 1330	Black Red	1.52 1.52	1.12 1.12	.77 .77	.72 .72				

MDP MOLDED DOUBLE "STACK UP" PLUGS

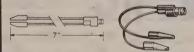
Double plugs to permit multiple stacking. Fit standard banana jacks. ¾" spacing. Made of tough thermo-plastic molded-directly on the metal body of plug. Set screws secure cable leads. Ground connections marked. One-piece nickel-plated beryllium copper springs. 15 amps continuous, 30 amps initial. 5000 WVDC. 5 oz.

Stock	Mfr's	Color	EACH								
No.	Type	Color	1- 9	10- 24	25- 49	50- Up					
885-0080 885-0081 885-0082 885-0083	MDP MDP MDP MDP	Black Red Orange Yellow	1.60 1.60 1.60 1.60	1.20 1.20 1.20 1.20	.90 .90 .90	.72 .72 .72 .72					
885-0085 885-0086 885-0087	MOP MDP MDP MDP	Green Blue Gray White	1.60 1.60 1.60 1.60	1.20 1.20 1.20 1.20	.90 .90 .90	.72 .72 .72 .72					

TYPE MDP-ST. Has solder turret terminals.

885-0114	MDP-ST	Black	1.80	1.44	.90	.72

MODEL 2886 BNC PLUG TO TEST CLIPS



Moided "breakout" converts coaxial cable to test cable. Tough thermoplastic insuitation moided to connector and wire. BNC plug connector; two minigator clips are of cadmium-plated steel with black and red vinyl insulators. The #20 wire is 7" long with polyvinyl insulation. 500V peak. 2 oz. 885-0654. 1-9 Each 8.10 10-24 Each 6.48 25-49... Each 4.05 50-Up... Each 3.24

BNC RECEPTACLE TO TEST CLIPS

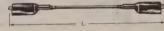


Type 2631. BNC receptacle UG1094/U with tough thermoplastic molded insulation. Two cadmium plated steel minigator test clips; black and red insulators. Wire is #20. Peak voltage at 500 V. Wt. 3 oz. 885-6625. 1-9 Each 6.75

One order from Allied can supply most of your test lead needs. Contact your nearest Allied office for ordering assistance.

INSULATED ALLIGATOR CLIP LEADS

AVAILABLE IN 2 LENGTHS, 2 COLORS



TYPE AL-B. Cadmium-plated steel alligator clips. #18 gauge wire, polyvinyl insulation. $-25^{\circ}\mathrm{C}$ to $+105^{\circ}\mathrm{C}$. Shpg. wt. 3 oz.

Stock	Mfr's	Insl.	Lath.	EACH					
No.	Туре	Color	In.	1-9	10-24	25-49	50-Up		
885-0003	AL-B-24	Black	24	2.20	1.50	1.13	1.06		
885-0004	AL-B-24	Red	24	2.20	1.50	1.13	1.06		
885-0000	AL-B-36	Black	36	2.20	1.50	1.13	1.06		
885-0007	AL-B-36	Red	36	2.20	1.50	1.13	1.06		

TEST-LEAD HOLDERS





File your test leads within easy reach. Made of cold-rolled steel, baked enamel finish. Mounts easily. One holder for one size for quick identification. 11x31/2" wide. 14 oz.

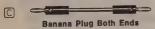
Stock	Mfr's	Cable Dia.	Color		EACI	СН		
No.	Type	(In.)	1 + 2	1-9	10-24	25-49	50-Up	
885-0382	1508	.210	Orange	5.85	3.90	3.15	2.34	
885-0631	2708	.450	Blue	6.12	4.90	3.15	2.45	

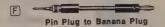
MODEL 2898 SOCKET-ADAPTER AND TOOL HOLDER

Hang your tools and adapters within easy reach; find them quickly. Holder holds seven 7_8 " and six $1\%_2$ " socket adapters plus 12 service tools. Steel with anti-rust baked green enamel finish. $3\%_2$ x11". Ship. wt. 14 oz. 885-0660, 1-4. Each 5.52 5-Up. Ea. 4.42

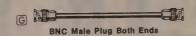


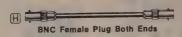
B Min. Alligator Clip Both Ends Std. Alligator Clip to Banana Plug





Big selection of jumpers and standard patch cords. Unshielded leads use #18 AWG 20,000-V insulated wire. Handles are tenite and/or molded bakelite. Cadmium-plated steel clips; nickel-plated brass tips; vinyl plastic boots. Have No. 25,000-volt insulation. Shielded leads use RGSBC/U coax cable, except †RG11A/U; ‡low capacity cable;







Double Banana Plug Both Ends



BNC Male Plug to Alligator Clips

UNSHIELDED JUMPERS

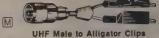
						EA	CH									EAG	CH	
Stock No.	Mfr's Type	Ft.	Color	Fig.	1-	10- 24	25- 99	100- Up		Stock No.	Mfr's Type	Ft.	Color	Fig.	1-	10- 24	25- 99	100- Up
920-1683 920-1684 920-1685 920-1686 920-1687	1596-12-102 1596-12-103 1596-36-102 1596-36-103 1596-60-102	1 1 3 3 5	Red Black Red Black Red	AAAAA	.93 .93 1.00 1.00	.74 .74 .80 .80	.62 .62 .67 .67	.53 .53 .57 .57 .57	9	20-1953 20-1954 20-1956 20-1957 20-1960	1863-36-102 1863-36-103 1863-60-102 1863-60-103 1865-36-102	33553	Red Black Red Black Red	00000	1.20 1.20 1.43 1.43 1.43	.96 .96 1.14 1.14 1.14	.80 .80 .95 .95	.69 .69 .81 .81
920-1680 920-1688 920-1689 920-1691 920-1692	1596-60-103 1597-12-102 1597-12-103 1597-36-102 1597-36-103	5 1 1 3 3	Black Red Black Red Black	A B B B	1.05 .93 .93 1.00	.84 .74 .74 .80	.70 .62 .62 .57 .67	.60 .53 .53 .57	9	20-1961 20-1963 20-1966 20-1967 20-1968	1865-36-103 1865-60-102 1866-36-102 1866-36-103 1866-60-102	3 5 3 3 5	Black Red Red Black Red	приши	1.43 1.55 1.58 1.58 1.65	1.14 1.24 1.26 1.26 1.32	.95 1.04 1.05 1.05 1.10	.81 .88 .90 .90
920-1693 920-1694 928-1950 928-1951	1597-60-102 1597-60-103 1863-12-102 1863-12-103	5 1 1	Red Black Red Black	BBCC	1.05 1.05 1.13 1.13	.84 .84 .90	.70 .70 .75	.60 .60 .64	9	20-1969 20-1970	1866-60-103 1868-36-103	5 3	Black Black	F	1.65 1.13	1.32	1.10 .75	.94

COAXIAL CABLE SHIELDED STANDARD PATCH CORDS

920-1650 920-1652 920-1654 920-1672	1589-12 1589-36 1589-60 1869-36	1 3 5 3	Black Black Black Black	GGGH	8.02 8.33 8.63 9.45	6.42 6.66 6.90 7.56	5.36 5.56 5.76 6.31	4.56 4.73 4.90 5.37
920-1674 920-1610 920-1613	1869-60 1580-12 1580-36	5 1 3	Black Black Black	H	9.75 6.53 6.83	7.80 5.22 5.46	6.51 4.36 4.56	5.54 3.71 3.88
920-1615 920-1586 920-1588	1580-60 1537-12 1537-36	1 3	Black Gray Gray	J K K	7.13 8.02 8.33	5.70 6.42 6.66	4.76 5.36 5.56	4.05 4.56 4.73

ľ	SIAND	AND F	717	711		IIDO			
	920-1590	1537-60‡	5	Gray	K	8.63	6.90	5.76	4.90
	920-1980	1872-36‡	3	Black	M	8.33	6.66	5.56	4.73
	920-1982	1872-60‡	5	Black	M	8.63	6.90	5.76	4.90
	920-1987	1873-36‡	3	Black	N	9.45	7.56	6.31	5.37
	920-1988	1873-60‡	5	Black	N	9.75	7.80	6.51	5.54
	920-1978	1871-60t	5	Black	L	8.63	6.90	5.76	4.90
	920-1560	1530-36§	4	Gray	P	6.83	5.46	4.56	3.88
	920-1564	1531-36§	3	Gray	R	8.33	6.66	5.56	4.73
	920-1568	1531-60	5	Gray	R	8.63	6.90	5.76	4.90

UHF Male Plug Both Ends





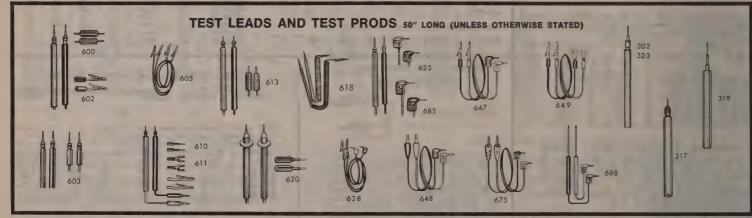
N BNC Male to Shielded Double Plug



Double Plug Both Ends



Double Plug to Alligator Clips



No. 20 rubber-covered wire 50" long (unless otherwise stated), 5000 V test. Handles, plugs: moided butyrate per

MIL-L-P349A, Type 3, Class MS; fiber per MIL-F-1148A, Grade CH; molded thermosetting plastic per MIL-P-14CFG.

Solderless Tip Test Leads. Prods are 4" long with %" O.D. Have molded butyrate

Stock	Mfr's	Meter End	Per Pair			
No.	Type		1-11	12-Up		
920-0600 920-0602		phone tips alligator clips	1.73	1.38		
		deriess Test		s. 4"		

prod has %" O.D. butyrate handle. Thermo-setting plug. Nickel/brass tip. Per Pair, 920-0603. 1-11. Ea. 2.18 12-Up. Ea. 1.74

Alligator Clip Test Leads. Cadmium-plated steel clips. *Have vinyl plastic boots. Types 716, 717, 718 have midget clips. Per Pair.

Stock	Mfr's	Length	Per Pair			
No.	Type	Inches	1-11	12-Up		
920-0605	605	24	1.43	1.14		
920-0629	629°	12	1.50	1.28		
920-0657	657°	24	1.58	1.26		
920-0716	716°	12	1.50	1.20		
920-0717	717°	18	1.53	1.22		
920-0718	718°	24	1.58	1.26		

Test Lead Kits, 4" handles have banana plugs at one end 610 has solderless phone tip; 611 has needle tip. With 2

mone tips.	z amy	tor clips, 2 st	aue luys
Stock	Mfr's	y Per Pa	ir
No.	Type	1-11	12-Up
920-0610	610	3.05	2.44
920-0611	611	3 05	2 44

Type 613 Phone Tips. Prods, 4" L, %" O.D. Butyrate handle, nickel-plated brass body, nickel-plated steel needle. Per Pair. 920-0613, 1-11. Ea. 1.73 12-Up. Ea. 1.38 Type 618 Retractile Solderless Test Leads, 12"-6' coil. Nickel-plated brass tips. Buty-rate handle. 4000 V; nom. O.D. .165". Per Pair.

920-0618. 1-11. . Ea. 4.95 12-Up. . Ea. 3.96 620 Insulated Phone Tips. 5° L prod, ½" O.D.; fiber handle; nickel/brass tip,

0.D.; fiber handle; nickel/brass tip, guard. Per Pair, 920-0620. 1-11...Ea. 3.67 12-Up...Ea. 2.94 Meter Test Leads, Soiderless Prods—4". Butyrate handle, %" O.D. Nicke.-plated brass tip, body. Molded thermosetting

plastic elbow. Banana meter tip, 4-leaved spring. Per Pair.

Stock	Mfr's	Meter End	Per
No.	Type		1-11
920-0625		phone tip	2.48
920-0685		banana tip	2.78

Meter Test Leads With Needle Prods. Same as meter test leads above, but with nickel-plated steel needle prods. Per Pair.

steel alligator c.ips have molded butyrate handles. Molded thermosetting plastic el-bows* and meter plugs. **Per Pair.**

920-0628 628° tip plugs 2.03 1.	
920-0647 647° banana plugs 2.18 1.	. 62 . 74 . 56

Crocodile Clip Test Leads With Boots. Clips are cadmium/steel. *Butyrate hand-les. Vinyl boots. †Thermosetting elbows. Per Pair Listing in next column.

Stock	Mfr's	Meter	Per Pair				
No.	Type	End	1-11	12-Up			
920-0648 920-0671 920-0675	671*	banana plugs spade lugs tip plugs	2.18 1.95 2.03	1.74 1.56 1.62			

920-0675 675t tip plugs 1.30 1.62
698 "Slim Jim" Test Leads, 4" butyrate prod, %" O.D.; 3½" cadmium/steel tip, vinyi tube. Phone tips, Per Pair.
920-0698.1-11 Ea. 2.25 12-Up Ea. 1.80
302 Solderless Prod. Threaded, 4" plastic handle, %" dia. Nickel-plated phone tip, 920-0402. Red. 920-0403. Bik. 6 oz. 1-24. ... Ea. 50 25-49. ... Ea. 40
50-99 ... Ea. 33 100-Up ... Ea. 28
323 Solderless Prod. Bone fiber handle, nickel-plated brass tip. 245 i. D. 5%"(L. 920-0427. Red. 920-0428. Black. 8 oz. 1-24. ... Each 58 25-49. ... Each 46
50-99 ... Each .39 100-Up ... Each .33
317 Replaceable Steel Phono Needle Prod. Brass/nickel body. Handle 4-%", 920-0420. Red 920-0421. Black. 4 oz. 1-24. ... Each .54
50-99 ... Each .36 100-Up ... Each .43
50-99 ... Each .36 100-Up ... Each .43
50-99 ... Each .36 100-Up ... Each .43
50-99 ... Each .50 25-49 ... Each .40
50-99 ... Each .50 25-49 ... Each .40
50-99 ... Each .50 25-49 ... Each .40

11 | 12-Up

Relay Quick Index and Cross References

RELAY QUICK INDEX.

	TELAT GOICK INDEX
COAXIAL War and the second of	Sigma . A. Jania . A. Jania . A. Jania
Amphenol	Struthers-Dunn
Dow Key	PROTECTIVE SENSORS Guardian 208, 220
GENERAL PURPOSE	
Allied196, 199	Potter & Brumfield
Cornell-Dubilier 202	Struthers-Dunn
Guardian	REED: COILS, SWITCHES, RELAYS Sigma
Hamlin 221	Alco
Magnecraft	Allied
Potter & Brumfield 200, 201	Cutler-Hammer A. W
RBM Controls	Hamlin 211, 216 THERMAL
Sigma202, 203, 204	Magnecraft
Struthers-Dunn 203	Potter & Brumfield
HIGH-PERFORMANCE	
RBM Controls 206	Sigma
T-Bar 206	Struthers-Dunn 212, 214 Guardian 220
IMPULSE LATCHING	RELAY SOCKETS A SAME TO BE A TO Intermatic
Guardian 208	Allied
Potter & Brumfield 207	Amphenol
POWER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Curtiss Dev
Guardian 205	Guardian 218 TOOLS
Magnecraft 204, 205	Pomona 17774 - 1777 - 1777 - 218 - 1 Jonard
Potter & Brumfield 205	Potter & Brumfield
RBM Controls	Sigma 218
112111 001111010 (1 1 1 1 1 1 1 1 1 1 1 1	ogne

CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

	ENCLO	SED PLUG-IN	TYPES			ENCLOSED B	RACKET MOUN	TED TYPES	
Allied Type	Contact Action	P&B	Sigma	Struthers Dunn	Allied Type	Contact Action	* P & B	Sigma	Struthers Dunn
ASD461-9 ASD471-9 ASD481-9	SPDT DPDT 3PDT	KUP5A15 - KUP11A15 KUP14A15	68R1 68R2 68R3	283XAXC 283XBXC 283XCXC	ASD491-9 ASD501-9 ASD511-9	SPDT DPDT 3PDT	KNP5A55 KNP11A55 KNP14A55	68R14 58R24 68R34	283XAXC1 283XBXC1 283XCXC1
	OPEN 6-3	2 TAPPED HOL	E TYPES			OPEN 6-32	STUD MOUNT	ED TYPES	
ASD401-9 ASD411-9 ASD421-9	SPDT DPDT 3PDT	KU5A35 KU11A35 KU14A35		283XAX 283XBX 283XCX	ASD431-9 ASD441-9 ASD451-9	SPDT DPDT 3PDT	KU5A15 KU11A15 KU14A15		283XAXS 283XBXS 283XCXS

CROSS-REFERENCE GUIDE-C. P. CLARE/POTTER AND BRUMFIELD

C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts
GP1R11A0000 GP1R11A1000 GP1R11A2000	KHU17A11 KHU17A11 KHU17A11	12VAC	GP3R211AD1000 GP3R211AD2000 GP3R211AD5000	KUP5D15 KUP5D15 KUP5D15	24VDC	GP3R231AA6000 GP3R231AA7000 GP3R231AD0000	KUP14A15	240VAC			12VAC	GP3R231ND1000 GP3R231ND2000 GP3R231ND5000	KUP14D55	12VDC 24DVC 110VDC
GP1R11A6000 GP1R11D0000	KHU17A11 KNU17D11	120VAC 6VDC	GP3R221AA0000 GP3R221AA1000	KUP11A15 KUP11A15	6VAC 12VAC	GP3R231AD1000 GP3R231AD2000	KUP14D15 KUP14D15	12VDC 24VDC	GP3R221NA6000 GP3R221NA7000	KUP11A55 KUP11A55	120VAC 240VAC	VP2CAB12 VP4CAB12	F10-E1-Y2-V185 R10-E1-Y4-V185	· · · · · · · · · · · · · · · · · · ·
GP1R11D1000 GP1R11D2000 GP1R11D3000	KNU17D11 KNU17D11 KNU17D11	24VDC	GP3R221AA6000	KUP11A15 KUP11A15 KUP11A15	120VAC	GP3R231AD5000 GP3R211NA0000 GP3R211NA1000	KUP5A55	6VAC	GP3R221ND0000 GP3R221ND1000 GP3R221ND2000	KUP11D55	12VDC	VP2CAB26 VP4CAB26	R10-E1-Y6-V90 R10-E1-Y2-V700 R10-E1-Y4-V700	
GP1R11D5000 GP3R211AA0000	KNU17D11 KUP5A15	6VAC	GP3R221AD1000	KUP11D15 KUP11D15	12VDC	GP3R211NA2000 GP3R211NA6000	KUP5A55	120VAC	GP3R221ND5000 GP3R231NA0000 GP3R231NA1000		6VAC	VP2CAB47	R10-E1-X6-V430 R10-E1-X2-V2.5K R10-E1-X4-V2.5K	
GP3R211AA1000 GP3R211AA2000 GP3R211AA6000	KUP5A15 KUP5A15	24VAC 120VAC	GP3R221AD5000 GP3R231AA0000	KUP11D15 KUP11D15 KUP14A15	110VDC 6VAC	GP3R211NA7000 GP3R211ND0000 GP3R211ND1000	KUP5D55 KUP5D55	6VDC 12VDC	GP3R231NA2000 GP3R231NA6000	KUP14A55 KUP14A55	24VAC 120VAC	VP6CAB47M VP2ACB120	R10-1E-Y6-V1.5K R10-E1-Y2-V15.0K	
GP3R211AA7000 GP3R211AD0000				KUP14A15 KUP14A15		GP3R211ND2000 GP3R211ND5000			GP3R231NA7000 GP3R231ND0000				R10-E1-Y4-V15-OK R10-E1-Y6-V9.OK	

CROSS-REFERENCE GUIDE-INTERCHANGEABLE FAMOUS-NAME RELAYS

C.P. Magne- Clare craft	C.P. Clare	P & B	C.P. Clare	P & B	C.P. Clare	P & B	C.P. Clare	P & B	C.P. Clare	P & B	C.P. Clare	P&
PRME1A005 W107DIP-1 PRME1A006 W107DIP-3 PRME1A012 W107DIP-3 PRME1A024 W107DIP-4	HG-1096-1	JM1-102-11 JM1-103-11 JM1-104-11	HG-1079-4 HG-1042-1	JM1-109-11 JM1-109-12 JM1-110-11 JM1-110-12 JM1-111-11 JM1-112-11 JM1-113-14 JM1-114-11	HG-1043-1 HG-1016-1 HG-1001-1 HG-1013-4 HG-1002-1	JM1-116-11 JM1-117-11 JM1-118-11 JM1-118-12	HG-1041-1 HG-1024-4	JM1-120-11 JM1-120-13 JM1-121-11 JM1-122-11	HGM-1003 HGM-1004 HGM-1005 HGM-1006 HGM-1007 HGM-1008 HGM-1010	JMD-1010 JMD-1020 JMD-1030 JMD-1040 JMD-1050 JMD-1060 JMD-1070 JMD-1080	HGM-1002 HGM-1001 HGM-1011 HGM-1012 HGM-1013 HGM-1014 HGM-1015 HGM-1016	JMD-1090 JMD-1100 JMD-1110 JMD-1120 JMD-1130 JMD-1140 JMD-1150 JMD-1160

Allied® Plug-In, Stud or Bracket-Mount Relays



General-purpose industrial relays designed for high reliability, excellent packaging density and best cost-to-quality relationships. 10-amp contacts for use in delicate instruments, logic circuits, as well as controlling heating elements, solenoid valves, small motors, machine tools, elevator controls, office machines, copy and vending devices. One, two and three-pole contact combinations are available in open and enclosed

styles. Clear polycarbonate covers are used on enclosed types. Have 0.187" flat male terminals, quick-connect type, pierced to accommodate solder wiring and spaced for standard plug-in mounting. U.L. Recognized. Life Expectancy: 10 million mechanical operations minimum (without load); 100,000 operations minimum at rated load. Operating Speed: 15 milliseconds and 10 milliseconds release, cont. duty. 3 oz.

TYPE ASD FRAME RELAYS—AC AND DC COIL SPECIFICATIONS

	DC COILS AND		ania (A	C COILS) 1 and 2 Pe	ole in China		(AC COILS) 3 Pole	
Voltage (Nominal)	Current in Milliamperes	Resistance Ohms	Voltage (Nominal)	Current in Milliamperes	Resistance Ohms	Voltage (Nominal)	Current in Milliamperes	Resistance Ohms
6 12 24 48 110	188 100 51 26.6 11.5	32.1 120.0 472.0 1800.0 10000.0	12 24 120 240	335.0 168.0 84.0 17.5 8.75	6 21 75 2250 9110	6 12 24 120 240	460.0 230.0 115.0 24.0 12.0	4.2 18.0 72.0 1700.0 7200.0

ORDERING AND PRICING INFORMATION

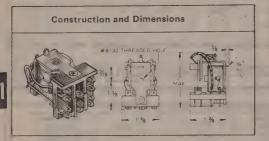
HOW TO ORDER

To Order, Substitute Last Number of Allied Type For Voltage. 1 = 6VAC, 2=12VAC, 3=24VAC, 4=120VAC, 5=240VAC, 6=6VDC,

7=12VDC, 8=24VDC, 9=110VDC. Ex: Allied Type No. ASD 412 is Stock No. 654-041X and Voltage 12VAC; Stock No. is then 654-0412.

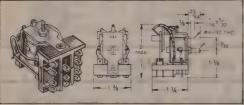
AVAILABLE ONLY IN VOLTAGES INDICATED

OPEN CONSTRUCTION TAPPED 6-32 HOLES

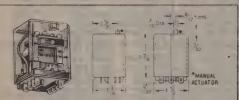


Canala Na	Allied	Allied Voltage		EACH					
Stock No.	ASD-	Voltage	Action	1-24	25-49	50-99	100-Up		
654-040X 654-040X	401, 404 405 406 409	6, 120VAC 240VAC 6VDC 110VDC	SPDT SPDT SPDT SPDT	5.73 6.43 5.50 6.60	4.58 5.14 4.40 5.28	3.33 3.74 3.20 3.83	2.96 3.32 2.84 3.40		
654-041X 654-041X	413, 414 416, 418 419	120VAC, 24VAC 6, 24VDC 110VDC	DPDT DPDT DPDT	7.20 6.43 7.50	5.76 5.14 6.00	4.19 3.74 4.37	3.72 3.32 3.88		
654-042X 654-042X	421 to 424 426, 428 429	6, 12, 24, 120VAC 6, 24VDC 110VDC	3PDT 3PDT 3PDT	8.15 7.45 8.15	6.52 5.96 6.52	4.73 4.32 4.73	4.20 3.84 4.20		

OPEN CONSTRUCTION 6-32 STUD MOUNTING

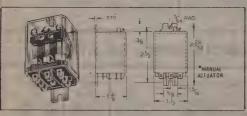


654-043X 654-043X	434 436 439	120VAC 6VDC 110VDC	SPDT SPDT SPDT	5.90 5.65 6.75	4.72 4.52 5.40	3.42 3.29 3.92	3.04 2.92 3.48
654-044X	444	120VAC	DPDT	7.45 8.15	5.96 6.52	4.28 4.73	3.80 4.20
654-044X	446, 447	6, 12VDC	DPDT	6.50	5.26	3.83	3.40
	449	110VDC	DPDT	7.68	6.14	4.46	3.96
654-045X	451 congression 221	6 VAC	3PDT	8.38	6.70	4.86	4.32
654-045X	459		3PDT	8.38	6.70	4.86	4.32



E	NCLOSED	CONSTRUC	TION PLUG-IN	17	": 2 :				
	654-046X 654-046X	461, 462 466 to 469	6, 12VAC 6, 12, 24VDC 110VDC	SPDT SPDT SPDT	6.20 5.98 7.05	4.96 4.78 5.64	3.60 3.47 4.10	3.20 3.08 3.64	10000
	654-047X 654-047X	471 to 474 476 to 478	6, 12, 24, 120VAC 6, 12, 24VDC	DPDT DPDT	7.68 6.90	6.14 5.52	4.46 4.01	3.96 3.56	
	654-048X 654-048X	482 to 484 488	12, 24, 120VAC 24VDC	3PDT 3PDT	8.68 7.90	6.94 6.32	5.04 4.59	4.48 4.08	

ENCLOSED CONSTRUCTION BRACKET MOUNTED



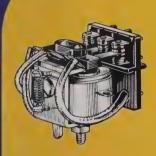
654-049X 654-049X	491 to 494 495 496 to 498 499	6, 12, 24, 120VAC 240VAC 6, 12, 24VDC 110VDC	SPDT SPDT SPDT SPDT	6.20 6.98 5.98 7.05	4.96 5.58 4.78 5.64	3.60 4.05 3.47 4.10	3.20 3.60 3.08 3.64
654-050X 654-050X	501 to 504 505 506 to 508 509	6, 12, 24, 120VAC 240VAC 6, 12, 24VDC 110VDC	DPDT DPDT DPDT	7.68 8.45 6.90 7.98	6.14 6.76 5.52 6.38	4.46 4.91 4.01 4.64	3.96 4.36 3.56 4.12
654-051X 654-051X	512 to 514 515 516 to 518	12, 24, 120VAC 240VAC 6, 12, 24VDC	3PDT 3PDT 3PDT	8.68 9.38 7.90	6.94 7.50 6.32	5.04 5.45 4.59	4.48 4.84 4.08

SOCKETS FOR ABOVE RELAYS

 Stock No.	Termination	EACH	Stock No.	Termination	EACH
654-0901 2000 654-0902	Printed Circuit	1.80	654-0903	Pierced Solder Terminals	1.80

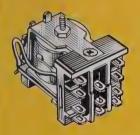
196 • *ALLIED*

QUALITY + COMPETITIVE PRICING = VALUE



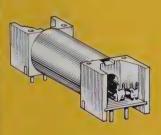
GENERAL PURPOSE RELAYS

Ideal anywhere you need light-duty power control circuits. Available in U.L. Component-Program Recognized open types and in 8 and 11-pin plugin types. Engineered and constructed for long-term reliable duty. Colorcoding for voltage and AC, DC or plate circuit aids production line and shows inventory at a glance.



ASD FRAME RELAYS

High reliability, excellent packaging density. 10 amp contacts for use in logic circuits, controlling heating elements and other uses. Open style or with clear polycarbonate cover. 0.187" flat male terminals, quick-connect type, pierced to accept solder wiring. Spaced for standard plug-in mounting. U.L. Recognized.



REED RELAYS

Allied's U.S.-made reed relays offer the best prices yet available. Integrally molded bobbin and terminal board for maximum insulation and mechanical protection for the hermetically sealed glass reed capsule. Available in several styles for printed circuit or other mounting.

ALLIED — YOUR BEST SOURCE FOR ALL TYPES OF RELAYS

QUALITY CONSTRUCTION

Allied's precise manufacturing standards and rigid quality control procedures mean top quality.

WIDEST SELECTION

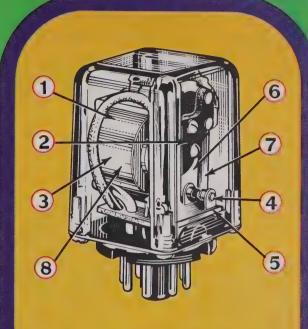
We stock relay types that are in greatest demand by our customers in the electronics industry.

IN STOCK

Our four large warehouses permit us to keep large stocks on hand to fill your component needs.

O.E.M. PRICES

Our quantity pricing gives you the lowest OEM prices available anywhere in the industry.



ALLIED'S

OWN RELAYS ARE YOUR BEST BUY...

HERE'S WHY...

THE INSIDE STORY

Allied relays are carefully designed, engineered and manufactured to highest industry standards. These standards assure you of top performance. Some of the outstanding features of these relays are:

- 1 Rugged nylon bobbins, sealed with a fused wrap.
- 2 Shock-resistant armature mounting prevents accidental operations.
- 3 Corrosion-resistant coil.
- 4 Silver cadmium oxide gold flashed contacts rated 8 Amps at 120 VAC or 32 VDC non-inductive.
- 5 Insulation breakdown of 1500 volts RMS between circuits and between circuits and frame.
- 6 Blade made for long life—5,000,000 mechanical operations.
- 7 Frame made from tough relay steel.
- 8 General Purpose line features color-coded tapes for AC, DC and voltage.



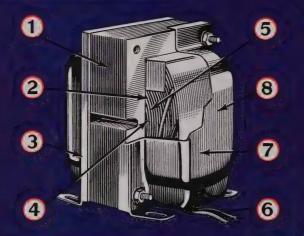
LLIED QUALITY BUILT TRANSFORMERS

Compare prices and specifications, and you will find that Allied transformers are your best buy.

THE INSIDE STORY

Specially built to Allied Electronics high standards for quality, stability and long-term performance.

- 1 Laminated cores of silicon iron electrical grade steel.
- 2 Insulation is non-corrosive Class A.
- 3 Temperature rating 105°C continuous operation.
- 4 Superior permeability at high inductances, with low coil loss.
- 5 Coils of high quality film insulated copper magnet wire.
- 6 Fast stripping PVC leads provide protection from oil, ozone and abrasion.
- 7 Cold rolled steel covers provide protection to coils.
- 8 Finished in semi-gloss enamel for good appearance.



ALLIED YOUR BEST SOURCE FOR ALL TRANSFORMERS

IN STOCK

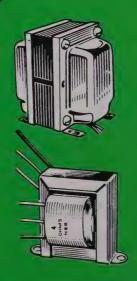
Large stock areas in our four warehouses are filled with most popular components.

IMMEDIATE DELIVERY

Your order will be shipped immediately from the nearest warehouse.

O.E.M. PRICES

Our large purchasing power enables us to quote lowest O.E.M. prices available.

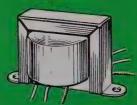


POWER

Complete line of power transformers for new equipment or replacement use including low voltage rectifier, oscilloscope, step-up, step-down and control transformers.

AUDIO/ TRANSISTOR

Includes input, interstage, high-fidelity, standard output, constant voltage 70.7V line-tovoice coil, transistor and driver transformers. All at lower prices than comparable brands.



FILAMENT

Allied's own top qualit filament transformers Wide selection of outpout voltages, currents an mounting styles. Bull packed quantities of 10 or more available.



FILTER CHOKES

Complete selection of filter chokes offering re liable service. Use when low voltage drop acros filter and good voltage regulation is required.

SEE TRANSFORMER INDEX ON PAGE 232

Best Record of Orders Filled in the Industry

Allied® General-Purpose Relays

SPECIFICATIONS

CONTACT RATINGS: 10 Amperes at 120 Volts AC or 32 Volts DC, non-inductive loads

CONTACT MATERIAL: Silver alloy, gold-flashed

COILS: AC or DC; Nylon bobbins, sealed with a fused wrap; coil leads are braided pigtails

INSULATION: 1500 Volts RMS between circuits and between circuits and frame

LIFE EXPECTANCY: exceeds 5 million operations

MOUNTING: Open Types, single hole, tapped 6-32 stud; Enclosed Types, SPDT and DPDT, standard 8-pin octal plug; 3PDT, 11-pin plug

COLOR CODING: 12 VAC, Red; 24 VAC, Green; 120 VAC, White; 12 VDC, Blue; 24 VDC, Yellow; 120 VDC, Black; PLATE CIRCUIT TYPES, Brown

• Compare—Get Same or Better Quality at Lower Prices

- Color-Coding for Voltage and AC, DC, or Plate Circuit Helps on Production Line and Shows Inventory at a Glance
- Open Types U.L. Component Program Recognized
- Special Price Quotations on Large-Quantity Requirements



RELAYS

Allied's own relays are equally at home in the control box of an elevator or in the heart of a computer—anywhere you need light-duty power control circuits. See the Cross Reference/Interchangeability Table at bottom of page that lists the many popular types that these cost-saving relays replace without any sacrifice in quality or performance. All relays have Nylon bobbins, shock-resistant armature mounting and corrosion-resistant coil.

Open types are U.L. Component-Program Recognized and have 6-32 stud mounting. The 8 and 11-pin plug-in types provide protection from dust and oil, speedy plug-in connection and foolproof replacement. All relays are color-coded for voltage and AC, DC or Plate Circuit types by means of colored coil tape. Shpg. wt.: Open types, 2 oz.; enclosed types, 3 oz. NOTE: All relays ordered in multiples of 50 will generally be shipped bulk in handy production-line packaging. Open types are available with Quick-Connect terminals on special order only; require 2 weeks lead time. Order as SO-703, Type Number, adding QC to end of number.

General-Purpose Open Type Relays SINGLE POLE DOUBLE THROW TYPES (SPDT)

*All Color-Coded for Voltage and AC, DC or Plate Circuit Types by Means of Colored Coil Tape

	Allied	EACH		Coil		Coil			CH		
Stock No.	Type No.	Voltage /lmp.	Contact Action	mA	Ohms	Color Code*	1-	10- 49	50- 499	500- Up	
703-1000 703-1001 703-1002 703-1014 703-1015	KN100-1C-12A KN100-1C-24A KN100-1C-120A KN105-1C-12D KN105-1C-24D	12 AC 24 AC 120A C 12 DC 24 DC	SPDT SPDT SPDT SPDT SPDT	170 85 35 80 40	20 75 1500 150 600	Red Green White Blue Yellow	6.05 6.05 6.05 5.82 5.82	4.84 4.84 4.84 4.84 4.66	3.08 3.08 3.08 2.96 2.96	2.00 2.00 2.00 1.91 1.91	

DOUBLE POLE DOUBLE THROW TYPES (DPDT)

703-1005	KN100-2C-12A	12 AC	DPDT	170	20	Red	7.43	5.94	3.77	2.33
703-1006	KN100-2C-24A	24 AC	DPDT	85	75	Green	7.43	5.94	3.77	2.33
703-1007	KN100-2C-120A	120 AC	DPDT	35	1500	White	7.43	5.94	3.77	2.33
703-1018	KN105-2C-12D	12 DC	DPDT	80	150	Blue	6.63	5.30	3.36	2.12
703-1019	KN105-2C-24D	24 DC	DPDT	40	600	Yellow	6.63	5.30	3.36	2.12
703-1020	KN105-2C-120D	120 DC	DPDT	11	10000	Black	7.74	6.19	3.93	2.48

THREE POLE DOUBLE THROW TYPES (3PDT)

703-1011 703-1023	KN100-3C-120A KN105-3C-24D	120 AC 24 DC	35 40	1500 600		6.58 5.99	2.63

General-Purpose Enclosed Type Relays SINGLE POLE DOUBLE THROW TYPES (SPDT) 8-PIN PLUG-IN

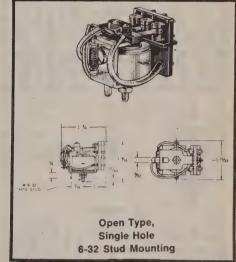
	Allied	Coil	Campana	Coil			EACH			
Stock No.	Type No.	Voltage /Imp.	Contact Action	mA	Ohms	Color Code*	1- 9	10- 49	50- 499	500- Up
703-1026 703-1027 703-1028 703-1039 703-1040	KN110-1C-12A KN110-1C-24A KN110-1C-120A KN115-1C-12D KN115-1C-24D	12 AC 24 AC 120 AC 12 DC 24 DC	SPDT SPDT SPDT SPDT SPDT	170 85 35 80 40	20 75 1500 150 600	Red Green White Blue Yellow	10.43 10.43 10.43 10.31 10.31	8.34 8.34 8.34 8.25 8.25	5.27 5.27 5.27 5.22 5.22	3.38 3.38 3.38 3.35 3.35

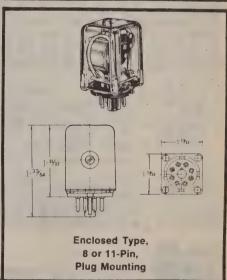
DOUBLE POLE DOUBLE THROW TYPES (DPDT) 8-PIN PLUG-IN

703-1031	KN110-2C-12A	12 AC	DDDT	470	20	D 1	44.07	0.04	0.04	
			DPDT	170	20	Red	11.67	9.34	6.01	3.74
703-1032	KN110-2C-24A	24 AC	DPDT	85	75	Green	11.67	9.34	6 01	
									6.01	3.74
703-1033	KN110-2C-120A	120 AC	DPDT	35	1500	White	11.67	9.34	6.01	3.74
703-1043	KN115-2C-12D									
		12 DC	DPDT	80	150	Blue	11.58	9.26	5.98	3.72
703-1044	KN115-2C-24D	24 DC	DPDT	40	600	V-11	44 50	0.20		
	KIVI 10-20-24D	24 00	ועדעו	40	000	Yellow	11.58	9.26	5.98	3.72
703-1045	KN115-2C-120D	120 DC	DDDT	4.4	40000	D1 1	40 74	40.45	0.40	4.40
		120 00	DPDT	- 11	10000	Black	12.71	10.17	6.43	4.13
703-1048	KN115-2C-2.5K	2500 Ohms	DPDT	40	2500	Brown	11.76	8.41	5.95	2.74
				10		DIOWII			5.35	3.71
703-1049	KN115-2C-5K	5000 Ohms	DPDT	7	5000	Brown	11.93	9.54	6.04	3.77
703-1050				- 1	40000					
703-1030	KN115-2C-10K	1 10000 Ohms	DPDT	. b	10000 1	Brown	12 62 1	10.10	6 40	4 01

THREE POLE DOUBLE THROW TYPES (3PDT) 11-PIN PLUG-IN

703-1035 703-1053	KN110-3C-120A KN115-3C-24D	120 AC 24 DC	3PDT 3PDT	35 40	1500 600		8.19 8.10	4.61 4.58





CROSS REFERENCE/INTERCHANGEABILITY GUIDE TO OTHER POPULAR MANUFACTURERS

			GENERAL-FU	REUSE OFER IT	PE NEL	AIS					
Allied	P & B	Guardian	Magnecraft	Phillips Advance	Comar	Line	Milwaukee	Omega	Ohmite		
KN100 KN105	KA/KAG KA/KAG	IR-1200 IR-1205	W88AX W88X	GHA, GHB GHA, GHB	M	MK/MKO MK/MKO	100	100 250	GR GR		
	GENERAL-PURPOSE ENCLOSED TYPE RELAYS										
KN110 KN115	KRP/KRP-G KRP/KRP-G/KCP	IR-1210 IR-1215	W88ACPX W88CPX	GHP, GHH GHP, GHH	M M	MKH, MKP MKH, MKP	105 105	200-PC 200-PC	GRTP GRTP		

General-Purpose Relays

TYPE KA OPEN RELAYS



Open relays for light power loads. Movable contacts: gold-flashed silver (10 amps, silver cadmium oxide). Stationary contacts: silver overlay. Relays with "Y" suffix are U.L. recognized and C.S.A. listed. Mechanical life expectancy: 10 million operations. Mounting: One No. 6-32 threaded stud and locating tab on .438" centers. Duty: continuous contacts. Av. shpg. wt. 4 oz.

COIL DATA FOR KA, KAP AND KRP

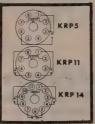
1	oc coi	LS	AC COILS					
Volts	Res., Ohms	mA	Volts	Res., Ohms	mA			
6 12 24	32 120 472	188 100 51	6 21 24	6 21 75	335 168 84			
110	10k	11.5	120 240	2250 9110	17.5 8.75			

10 AMPERES

SERIES KRP AND KRP-N GENERAL-PURPOSE ENCLOSED RELAYS

Transparent Plug-in Case-Weatherproof and Dustproof



General-purpose relays are enclosed in high-impact transparent, cellulose acetate case. Dust and weather proofed. Coil power at 25°C: DC—100 mW minimum, 4 watts maximum; AC—2 volt-amperes. Temperature range: -45°C minimum; AC types to +70°C maximum; DC to +85°C maximum; DC to +85°C maximum; DC


*KRP-N Series includes a lamp to indicate current or voltage availability in power circuits. Lamp lights when coil is energized. Types KRP5 and KRP11 plug into standard octal socket; KRP14 plugs into 11-pin socket. Holddown springs and socket information in this section. Coil Data Chart at left, above. Size: both series, 13/2x11/3/x12. Av. shog. wt. 5 oz. Ask for prices in quantities of 100-Up.

5 AMPERES

	Mfr's				EAG	CH	
Stock No.	Type KRP-	Coil Volts	Action	1- 9	10- 24	25- 49	50- Up
886-0670 886-0672 886-0673 886-0679 886-0680	5A 5A 5A 5D 5D	6 AC 24 AC 120 AC 6 DC 12 DC	SPDT SPDT SPDT SPDT SPDT SPDT	12.53 12.53 12.53 12.43 12.43	10.02 10.02 10.02 9.94 9.94	6.70 6.70 6.70 6.65 6.65	6.35 6.35 6.35 6.30 6.30
886-0681 886-0690 886-0691 886-0692	5D 11A 11A 11A	24 DC 6 AC 12 AC 24 AC	SPDT DPDT DPDT DPDT	12.43 13.93 13.93 13.93	9.94 11.14 11.14 11.14	6.65 7.46 7.46 7.46	6.30 7.07 7.07 7.07
886-0693 886-0694 886-0705 886-0706 886-0707	11A 11A 11D 11D	120 AC 240 AC 6 DC 12 DC 24 DC	DPDT DPDT DPDT DPDT DPDT	13.93 14.83 13.85 13.85 13.85	11.14 11.86 11.08 11.08 11.08	7.46 7.93 7.41 7.41 7.41	7.07 7.52 7.02 7.02 7.02
886-0708 886-0717 886-0718 886-0719	11D 14A 14A 14A	110 DC 12 AC 24 AC 120 AC	DPDT 3PDT 3PDT 3PDT 3PDT	14.38 11.56 11.56 11.56	11.50 9.75 9.75 9.75 9.75	8.17 9.26 9.26 9.26	7.74 8.78 8.78 8.78
886-0720 886-0728 886-0729 886-0730 886-0731	14D 14D 14D 14D	240 AC 6 DC 12 DC 24 DC 110 DC	3PDT 3PDT 3PDT 3PDT 3PDT	12.16 11.44 11.44 11.44 12.32	10.25 9.65 9.65 9.65 10.40	9.74 9.17 9.17 9.17 9.88	9.23 8.69 8.69 8.69 9.36

5 AMPERES

Canak	Mfr's	Dall	. , .	-	EAG	CH		Stock	Mfr's	Coil			EAU	H	
Stock No.	Тура	Coil Volts	Action	1-	10- 24	25- 49	50- Up	No.	Type	Volts	Action	1-	10- 24	25- 49	50- Up
886-0380 886-0381 886-0382 886-0383	KA5AY KA5AY KA5AY KA5AY	6 AC 12 AC 24 AC 120 AC	SPDT SPDT SPDT SPDT	7.45 7.45 7.45 7.45	5.96	3.99 3.99 3.99 3.99	3.78 3.78 3.78 3.78	886-0376 886-0376 886-0377 886-0378	KASAG KASAG KASAG KASAG	6 AC 12 AC 24 AC 120 AC	SPDT SPDT SPDT SPDT	7.55 7.55 7.55 7.55	6.04 6.04 6.04	4.04 4.04 4.04 4.04	3.83 3.83 3.83 3.83
886-0390 886-0391 886-0398 886-0399	KA5DY KA5DY KA11AY KA11AY	12 DC 24 DC 6 AC 12 AC	SPDT SPDT DPDT DPDT	7.20 7.20 9.05 9.05	5.76 5.76 7.24	3.85 3.85 4.85 4.85	3.65 3.65 4.59 4.59	886-0379 886-0385 886-0386 886-0387	KA5AG KA5DG KA5DG KA5DG	240 AC 6 DC 12 DC 24 DC	SPDT SPDT SPDT SPDT	8.43 7.28 7.28 7.28	6.74 5.82 5.82 5.82	4.51 3.90 3.90 3.90	4.28 3.69 3.69 3.69
886-0400 886-0401 886-0402 886-0407	KA11AY KA11AY KA11AY KA11DY	24 AC 120 AC 240 AC 6 DC	DPDT DPDT DPDT DPDT	9.05 9.05 9.78 7.90	7.24 7.24 7.82 6.32	4.85 4.85 5.23 4.23	4.59 4.59 4.95 4.00	886-0388 886-0393 886-0394 886-0395	KA5DG - KA11AG KA11AG KA11AG	110 DC 6 AC 12 AC 24 AC	SPOT DPDT DPDT DPDT	9.23 9.23 9.23	7.38 7.38 7.38 7.38	4.56 4.94 4.94 4.94	4.33 4.68 4.68 4.68
886-0409 886-0410 886-0416 886-0417	KA11DY KA11DY KA11DY KA14AY KA14AY	12 DC 24 DC 110 DC 6 AC 12 AC	DPDT DPDT DPDT 3PDT 3PDT	7.90 7.90 9.33 9.78 9.78	6.32 7.46 7.82 7.82	4.23 4.99 5.23 5.23	4.00 4.73 4.95 4.95	886-0396 886-0397 886-0404 886-0405 886-0406	KA11AG KA11AG KA11DG KA11DG KA11DG	120 AC 240 AC 12 DC 24 DC 110 DC	DPDT DPDT DPDT DPDT DPDT	9.23 9.95 8.18 8.18 9.58	7.38 7.96 6.54 6.54 7.66	4.94 5.32 4.37 4.37 5.13	4.68 5.04 4.14 4.14 4.86
886-0419 886-0420 886-0426 886-0427	KA14AY KA14AY KA14DY KA14DY	120 AC 240 AC 12 DC 24 DC	3PDT 3PDT 3PDT 3PDT 3PDT	9.78 10.75 8.98 8.98	7.82	5.23 5.75 4.80 4.80	4.95 5.45	886-0411 886-0412 886-0413 886-0414	KA14AG KA14AG KA14AG KA14AG	6 AC 12 AC 24 AC 120 AC	3PDT 3PDT 3PDT 3PDT 3PDT	10.13 10.13 10.13 10.13	8.10 8.10 8.10 8.10	5.42 5.42 5.42 5.42	5.13 5.13 5.13 5.13
886-0428	KA14DY	110 DC	3PDT	10.30	8.24	5.51	5.22	886-0415 886-0421 886-0423 886-0424	KA14AG KA14DG KA14DG KA14DG	240 AC 6 DC 24 DC 110 DC	3PDT 3PDT 3PDT 3PDT	9.33 9.33 10.65	7.46 7.46 8.52	5.99 4.99 4.99 5.70	5.67 4.73 4.73 5.40

TYPE KAP ENCLOSED RELAYS

Enclosed relays (plastic dust cover) for light power loads. Contacts, mechanical life, duty, and suffix "Y" same as Series KA above. SPDT, DPDT: 8 pin plugs. 3 PDT: 11 pin. Av. shpg. wt. 5 oz.

10 AMPERES



D4==l-	386-1-	0.4	1.	, '	EA	CH .	
Stock No.	Mfr's Type	Coil Volts	Action	1-9	10- 24	25- 49	50- Up
886-0431 886-0432 886-0436 886-0437 886-0440	KAP5DG KAP5DG	24 AC 120 AC 24 DC 110 DC 6 AC	SPDT SPDT SPDT	12.70 12.70 12.53 13.93 14.20	10.16 10.16 10.02 11.14 11.36	6.79 6.79 6.70 7.46 7.36	6.44 6.44 6.35 7.07 7.20
886-0441 886-0442 886-0450 886-0451	KAP11AG KAP11AG KAP11DG	24 AC 120 AC 24 DC 110 DC	DPDT DPDT DPDT	14.20 14.20 14.10 14.65	11.36 11.36 11.28 11.72	7.60 7.60 7.55 8.31	7.20 7.20 7.16 7.88
886-0460 886-0461 886-0470 886-0471	KAP14AG KAP14DG	24 AC 120 AC 24 DC 110 DC	3PDT 3PDT	11.74 11.74 11.67 12.63	9.96 9.96 9.85 10.65	9.41 9.41 9.36 10.12	8.91 8.91 8.87 9.59

SERIES KNP GENERAL-PURPOSE RELAYS



886-0444 KAP11AY 886-0445 KAP11AY 886-0454 KAP11AY 886-0454 KAP11DY 886-0455 KAP11DY

886-0456 KAP11DY 886-0466 KAP14AY 886-0466 KAP14AY 886-0475 KAP14DY 886-0476 KAP14DY

1.531 - 1.43

Mfr's

120 AC 240 AC 12 DC 24 DC

110 DC 120 AC 240 AC 12 DC 24 DC

Stock No.

Small size relay for control applications where space is limited. Enclosed in clear polycarbonate dust cover. Silver cadmium oxide contacts. Recognized under Component Program of U.L. for ratings at 1/10 hp at 120 VAC; 3 amps at 32 VDC resistive; or 3 amps at 240 VAC, 80% power factor. Relays have _110" quick-connect/solder terminals. Mount with

EACH

No. 3-48 stud, or snap-in socket with solder or printed circuit terminals. Contacts are fine silver cross bars for low resistance point contact. KNP-11 series has 6-32" tapped hole with locating tab for chassis mounting. Size: .98 x 1.00 x 1.415" maximum. Weight: 14. ounces without socket.

Stock No.	Mfr's	0 11			EACH				
	Type KNP-	Coil Volts	Action	1-	10- 24	25- 49	50- Up		
886-0627 886-0631 886-0632	11A21 11D21 11D21	24 AC 24 DC 48 DC	DPDT DPDT DPDT	8.98 8.00 8.25	7.18 6.40 6.60	4.80 4.28 4.42	4.55 4.05 4.19		

5 AMPERES

DPDT 3PDT 3PDT 3PDT 3PDT 3PDT

14.03 14.03 14.83 13.93 13.93

14.48 11.56 12.09 11.44 11.44

	Mfr's				EA	CH	
Stock No.	Type KNP-	Coil Volts	Action	1-	10- 24	25- 49	50- Up
886-0633 886-0637 886-0640	11 D21 14A21 14D21	110 DC 120 AC 24 DC	DPDT 3PDT 3PDT	9.33 9.95 9.23	7.46 7.96 7.38	4.99 5.32 4.94	4.73 5.04 4.68

SERIES GA MULTIPLE-CONTACT RELAYS

For remote power switching, power control and general uses. Withstand mobile shock and vibration. Moisture resistant coil. 5A contacts, AC coils for 50/60 Hz. Power at 25°C:

DC, 2W nominal, 6W max.; AC, 6 VA. Temp range: -45°C; AC to +45°C. Pull-in: AC, 85% or less of nom. voltage; DC, 75% or less. Solder terminals. 11/16x123/2x123/2x123/2x1.

0				EAGII					
Stock No.	Mfr's Type	Coil Volts	Action	1-	10- 24	25- 49	50- Up		
886-0180	GA11A	24 AC	DPDT	8.00	6.40	4.28	4.05		
886-0181	GA11A	120 AC	DPDT	8.00	6.40	4.28	4.05		
886-0183	GA11D	12 DC	DPDT	8.00	6.40	4.28	4.05		
886-0184	GA11D	24 DC	DPDT	8.00	5.40	4.28	4.05		
886-0187	GA14A	120 AC	3PDT	9.58	7.66	5.13	4.86		
886-0191	GA17A	24 AC	4PDT	11.55	9.24	6.18	5.85		

					EA	LII	
Stock	Mfr's	Coil	Action	1-	10-	25-	50-
No.	Type	Volts		9	24	49	Up
886-0192	GA17A	120 AC	4PDT	11.55	9.24	6.18	5.85
886-0193	GA17A	240 AC		12.33	9.86	6.60	6.25
886-0194	GA17D	6 DC		11.55	9.24	6.18	5.85
886-0195	GA17D	12 DC		11.55	9.24	6.18	5.85
886-0196	GA17D	24 DC		11.55	9.24	6.18	5.85

10 AMPERES

				EACH				
	Mfr's				-			
Stock No.	Type KRP-	Coil Volts	Action	1-	10- 24	25- 49	50- Up	
886-0675 886-0676 886-0677 886-0685 886-0686	5AG 5AG 5AG 5DG 5DG	6 AC 120VAC 120VAC 6 DC 12 DC	SPDT SPDT SPDT SPDT SPDT SPDT	12.88 12.88 12.88 12.70 12.70	10.30 10.30 10.30 10.16 10.16	6.89 6.89 6.89 6.79 6.79	6.53 6.53 6.53 6.44 6.44	
886-0688 886-0695 886-0696	5DG 11AG 11AG	110 DC 6 AC 12 AC	SPDT DPDT DPDT	14.10 14.38 14.38	11.28 11.50 11.50	7.55 7.70 7.70	7.16 7.29 7.29	
886-0701 886-0697 886-0702 886-0698 886-0703	*11AN 11AG *11AN 11AG *11AN	12 AC 24 AC 24 AC 120 AC 120 AC	DPDT DPDT DPDT DPDT DPDT	11.02 14.38 11.02 14.38 11.02	9.30 11.50 9.30 11.50 9.30	8.84 7.70 8.84 7.70 8.84	8.37 7.29 8.37 7.29 8.37	
886-0699 886-0704 886-0709 886-0710 886-0713	11AG *11AN 11DG 11DG *11DN	240 AC 240 AC 6 DC 12 DC 12 DC	OPDT DPDT DPDT DPDT DPDT DPDT	14.48 11.62 14.30 14.30 10.85	11.58 9.80 11.44 11.44 9.15	8.22 9.31 7.65 7.65 8.69	7.79 8.82 7.25 7.25 8.24	
886-0711 886-0714 886-0712 886-0715 886-0721	11DG *11DN 11DG *11DN 14AG	24 DC 24 DC 110 DC 110 DC 6 AC	DPDT DPDT DPDT DPDT 3PDT	14.30 10.85 14.83 11.86 11.97	11.44 9.15 11.86 10.00 10.10	7.65 8.69 8.41 9.50 9.60	7.25 8.24 7.97 9.00 9.09	
886-0722 886-0723 886-0724 886-0726 886-0725	14AG 14AG 14AG *14AN 14AG	12 AC 24 AC 120 AC 120 AC 240 AC	3PDT 3PDT 3PDT 3PDT 3PDT 3PDT	11.97 11.97 11.97 13.39 12.63	18.10 10.10 10.10 11.30 10.65	9.60 9.60 9.60 10.74 10.12	9.09 9.09 9.09 10.17 9.59	
886-0727 886-0735 886-0736 886-0737 886-0738	*14AN 14DG 14DG 14DG 14DG	240 AC 6 DC 12 DC 24 DC 110 DC	3PDT 3PDT 3PDT 3PDT 3PDT 3PDT	13.99 11.86 11.86 11.86 12.81	11.80 10.00 10.00 10.00 10.80	11.21 9.50 9.50 9.50 10.26	10.62 9.00 9.00 9.00 9.72	

General-Purpose Relays

R10 SERIES DC INDUSTRIAL RELAYS

Transparent enclosures. Solder terminals, for stud or plug-in mounting. Mechanical Life: 100 million operations. Contacts: 2, 4 or 6 Form C; fine silver, gold bonded. Contact Resistance: 50 milliohms maximum initially; 200 milliohms after life. Operating temperature: —55° to +72°C. Size, 1.187x.735x.737" max. *Number of contacts. Wt. 1½ oz.



Type KHP

64 1-17/64

Use with

Sockets

Type KHU

1.5/64 - 1.17/64

WITH BIFURCATED LOW LEVEL CONTACTS

Ot I	Mfr's	Coil		EACH				
Stock No.	Туре	V or mA	*	1-	10-		100-	
110,	R10-	DC		9	49	99	Up	
886-1105	E1-Z2-V700	24 V	2	7.28	5.82	3.94	3.74	

WITH SENSITIVE CURRENT ADJUSTMENT

Contacts rated 2 amps

886-1070 E1-Y2-J2.5K 5.8 mA 2 7.10 5.68 3.85 3.65

R10 TELEPHONE TYPE RELAYS Contact ratings: Y Series, 2A; X Series, 5A.

Stock	Mfr's	Coil	*		EA	CH	Н		
No.	Type R10-	V		1 9	10- 49	50- 99	100- Up		
886-1075	E1-Y2-V185	12 V	2 2 4 4	6.48	5.18	3.52	3.33		
886-1076	E1-Y2-V700	24 V		6.48	5.18	3.52	3.33		
885-1085	E1-Y4-V52	6 V		7.18	5.74	3.90	3.69		
886-1088	E1-Y4-V2.5K	48 V		7.18	5.74	3.90	3.69		
886-1089	E1-Y4-V15.0K	110 V	2	10.95	8.76	5.94	5.63		
886-1090	E1-X2-V52	6V		6.74	5.40	3.66	3.47		
886-1091	E1-X2-115VAC	115V		10.15	8.12	5.51	5.22		
886-1092	E1-X4-115VAC	115V		12.43	9.94	6.75	6.39		
886-1093	E1-Y2-V52	6V		6.48	5.18	3.52	3.33		
886-1095	E1-Y6-V430	24 V	6 2 2 4 4	9.28	7.42	5.04	4.77		
886-1050	E1-X2-V185	12 V		6.75	5.40	3.66	3.47		
886-1051	E1-X2-V700	24 V		6.75	5.40	3.66	3.47		
886-1052	E1-X4-V52	6 V		7.70	6.16	4.18	3.96		
886-1053	E1-X4-V185	12 V		7.70	6.16	4.18	3.96		
886-1054	E1-X4-V700	24 V	4	7.70	6.16	4.18	3.96		
886-1057	E1-X6-V430	24 V		10.08	8.06	5.46	5.18		

SERIES KH MINIATURE 4PDT RELAYS

KHP and KHU have nylon dust cover; KHS, hermetically sealed with metal cover. KHU, U.L. Recog. Gold-flashed silver contacts rated 3 amps at 30 VDC or 120 VAC res., except suffix "12," silver-cadmium oxide. Solder term. KHP has 3-48 mtg. stud. 2 oz. Contact Allied for prices in quantities of 100-Up.

COIL DATA FOR SERIES KH RELAYS

DC	Coils (0.5-2	Watts)	AC Coils (1.20 VA)			
V	Resistance in Ohms ±10% @25°C	Induct. in H (approx.)	٧	Resistance in Ohms ±10% @25°C	Aver. Curr. mA	
6 12 24 48 90 110	40 160 650 2600 9000 11k	.08 .28 1.0 4.5 13.5 17.0	6 12 24 120	10.5 43 160 3900	200 100 52 10.5	

Stock	Mfr's	Coil	EACH					
No.	Type	Volts	1-9	10-24	25-49	50-Up		
886-0545	KHP17A11	6 AC	11.10	8.88	5.94	5.63		
886-0547	KHP17A11	24 AC	11.10	8.88	5.94	5.63		
886-0548	KHP17A11	120 AC	12.08	9.66	6.46	6.12		
886-0550	KHP17D11	6 DC	10.03	8.02	5.37	5.09		
886-0551	KHP17D11	12 DC	10.03	8.02	5.37	5.09		
886-0552	KHP17D11	24 DC	10.03	8.02	5.37	5.09		
886-0553	KHP17D11	48 DC	10.48	8.38	5.61	5.31		
886-0554	KHP17D11	90 DC	11.80	9.44	6.32	5.99		
886-0555	KHP17D11	110 DC	11.80	9.44	6.32	5.99		
886-0556	KHS17D12	24 DC	11.74	9.90	9.41	8.91		
886-0557	KHP17D12	24 DC	10.38	8.30	5.56	5.27		
886-0558	KHP17D12	110 DC	12.08	9.66	6.46	6.12		
886-0559	KHS17A11	12 AC	12.86	10.85	10.31	9.77		
886-0564	KHS17A11	120 AC	13.39	11.30	10.74	10.17		
886-0566	KHS17D11	6 DC	11.56	9.75	9.26	8.78		
886-0567	KHS17D11	12 DC	11.56	9.75	9.26	8.78		
886-0568	KHS17D11	24 DC	11.56	9.75	9.26	8.78		
886-0569	KHS17D11	110 DC	12.69	10.70	10.17	9.63		
886-0575	KHU17A11	6 AC	11.10	8.88	5.94	5.63		
886-0576	KHU17A11	12 AC	11.10	8.88	5.94	5.63		
886-0577	KHU17A11	24 AC	11.10	8.88	5.94	5.63		
886-0578	KHU17A11	120 AC	12.08	9.66	6.46	6.12		
886-0580	KHU17D11	6 DC	10.03	8.02	5.37	5.09		
886-0581	KHU17D11	12 DC	10.03	8.02	5.37	5.09		
886-0582	KHU17D11	24 DC	10.03	8.02	5.37	5.09		
886-0588	KHU17D12	24 DC	10.38	8.30	5.56	5.27		
886-0585	KHU17D11	110 DC	11.80	9.44	6.32	5.99		
886-0589	KHU17D12	110 DC	12.08	9.66	6.46	6.12		

KR3 AND KRP3-H SERIES DOUBLE-BREAK **HEAVY-DUTY RELAYS**

Copper alloy contact arms; silver-cadmium-oxide contacts. Rated 20 amps, 120 VAC, 60 Hz resistive, or 28 VDC; 1 hp, 120/240 VAC, 60 Hz. Action is SPST-N.O.-DM (one Form X). KR3 Series are 6-32 stud mounted on 437" mtg. centers. Measure 1.6x1.67x1.52". KRP3-H Series have same specifications as above but are enclosed in clear plastic dust cover and have octal base. Both types have same coli rating as KA Series, shown in this section. Av. shpg. wt. 3 oz.



Stock	Mfr's	Coil	EACH					
No.	Туре	Volts	1-9	10-24	25-49	50-Up		
886-0656	KR3AH	120 AC	9.15	7.32	4.89	4.64	1	
886-0658 886-0661	KR3DH S KRP3AH	12 DG	8.70 14.55	6.96	4.66 7.79	4.41 7.38		
886-0663	KRP3DH	.12 DC	14.10	11.28	7.55	7.16		
886-0664	KRP3DH	24 DC	14.10	11.28	7.55	7.16		
886-0665) KBB3UH	110 BC	14 65	111 72	8 31	7 22		



R40 SERIES SLIMLINE DC RELAYS

For Use with Series 9XR40 **Relay Sockets**

Flat, low-profile package 4PDT relays designed for printed circuit board applications. Permits 0.6" board mounting centers. Low power, approximately 180 mW/pole. Mechanical life: over 10 million operations. Electrical life: up to 600,000 operations. High contact pressure: 15 grams minimum, Contacts: 4 Form C. E1 has solder terminals for plug-in mounting; E3 has right-angle PC terminals. Size: 1.2 x 1.4 x 0.43" maximum. 1 oz.

0. 1	Canal Mir's Coil		EACH				
Stock No.	Type R40-	. V	Α	1- 9	10- 24	25- 49	50- Up
886-1180 886-1182 886-1183 886-1184 886-1186 886-1236	E1-X4-V200 E1-Y4-V800 E1-Z4-V200 E3-X4-V200 E3-Y4-V800 E3-X4-V800	12 24 12 12 24 24	5 3 0.1 5 2 5	11.13 10.59 11.55 11.11 10.59 11.13	8.90 8.48 9.24 8.90 8.48 8.90	6.03 5.75 6.27 6.03 5.75 6.03	5.72 5.45 5.94 5.71 5.45 5.72



LOW COST **10A RELAYS**

For Use with Type 1220-51 Phenolic Sockets

Use as so+der lug, socket plug-in or with AMP 110 Faston quick-connect series. Contacts: 10A @ 115 VAC, non-inductive. 1½2x111/6x11/6". Wt. 3 oz.

DPDT ACTION

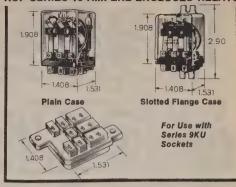
Stock	Тура	Coil	EACH 1-9 10-24 25-49 50-			
No.	Type IR-	Volts	1-9	10-24	25-49	50-Up
802-0304 802-0327	1220-2C-120A 1225-2C-24D	120AC 24DC	8.53 8.53		4.73 4.73	4.46 4.46

SPDT ACTION

				NAME OF TAXABLE PARTY.	Particular de la constantina	
802-0310	1220-3C-24A	24AC	9.15	7.32	5.07	4.79
802-0312	1220-3C-120A	120AC			5.07	
	1225-3C-12D			7.33		
802-0334	1225-3C-24D	24DC	9.15	7.32	5.07	4.79

KUP SERIES 10-AMPERE ENCLOSED RELAYS

GENERAL-PURPOSE RELAYS



Plain Case. Industrial control relays for continuous operation. Silver-cadmium oxide contacts, Terminals .187" quick-connect/solder style, Clear plastic dust cover, Slotted-Flange Case, For direct-to-chassis mtg. Slot width, .156". 1.531x1.408x1.908". Wt. 3 oz.

KUP SERIES WITH PLAIN CASE

	Mfr's				EA	CH	
Stock No.	Type KUP-	Volts	Action	1- 9	10- 24	25- 49	50- Up
886-0770	5A15	6 AC	SPOT	8.18	6.54	4.37	4.14
886-0771	5A15	24 AC	SPOT	8.18	6.54	4.37	4.14
886-0772	5A15	120 AC	SPOT	8.18	6.54	4.37	4.14
886-0773	5A15	240 AC	SPOT	9.15	7.32	4.89	4.64
886-0774	5D15	6 DC	SPOT	7.90	6.32	4.23	4.00
886-0775	5D15	12 DC	SPDT	7.90	6.32	4.23	4.00
886-0776	5D15	24 DC	SPDT	7.90	6.32	4.23	4.00
886-0777	5D15	110 DC	SPDT	9.23	7.38	4.94	4.68
886-0778	11A15	6 AC	DPDT	9.95	7.96	5.32	5.04
886-0779	11A15	12 AC	DPDT	9.95	7.96	5.32	5.04
886-0780	11A15	24 AC	DPDT	9.95	7.96	5.32	5.04
886-0781	11A15	120 AC	DPDT	9.95	7.96	5.32	5.04
886-0782	11A15	240 AC	DPDT	10.93	8.74	5.84	5.54
886-0783	11D15	6 DC	DPDT	9.05	7.24	4.85	4.59
886-0784	11D15	12 DC	DPDT	9.05	7.24	4.85	4.59
886-0785 886-0786 886-0787 886-0788 886-0789	11D15 11D15 14A15 14A15 14A15	24 DC 110 DC 6 AC 120 AC 240 AC	DPDT DPDT 3PDT 3PDT 3PDT 3PDT	9.05 10.38 11.18 11.18 12.08	7.24 8.30 8.94 8.94 9.66	4.85 5.56 5.99 5.99 6.46	4.59 5.27 5.67 5.67 6.12
886-0790	14D15	6 DC	3PDT	10.30	8.24	5.51	5.22
886-0791	14D15	12 DC	3PDT	10.30	8.24	5.51	5.22
886-0792	14D15	24 DC	3PDT	10.30	8.24	5.51	5.22
886-0793	14D15	110 DC	3PDT	11.18	8.94	5.99	5.67
886-0794	5A55	120 AC	SPDT	8.16	6.54	4.37	4.14
886-0795	11A55	120 AC	DPDT	9.94	7.96	5.32	5.04

KUP SERIES WITH SLOTTED-FLANGE

-		Mfr's				EA	CH	
	Stock No.	Type KUP-	Volts	olts Action	1- 9	10- 24	25- 49	50- Up
	886-0800	14A55	6 AC	3PDT	11.18	8.94	5.99	5.67
	886-0802	14A55	24 AC	3PDT	11.18	8.94	5.99	5.67
	886-0803	14A55	120 AC	3PDT	11.18	8.94	5.99	5.67
	886-0804	14A55	240 AC	3PDT	12.08	9.66	6.46	6.12
	886-0805	14D55	6 DC	3PDT	10.30	8.24	5.51	5.22
	886-0806	14D55	12 DC	3PDT	10.30	8.24	5.51	5.22
	886-0807	14D55	24 DC	3PDT	10.30	8.24	5.51	5.22
	886-0808	14D55	110 DC	3PDT	11.18	8.94	5.99	5.67

KDP GENERAL-PURPOSE RELAY

Compact relay for dense packaging in electrical control systems. Has 8 Form C bifurcated contacts for simultaneous switching of several isolated outputs. 8PDT contacts rated 1 amp at 30 VDC or 0.5 amp at 120 VAC, resistive. Operate time: 15 msec max. at 25°C. Life: electrical, 100,000 operations; mechanical, 10 million operations. Temp. 1½ oz.



					EA	CH	
Stock	Mfr's	Co		1-	10-	25-	50-
No.	Type	V	Ohms	9	24	49	Up
886-0538	KDP-29D11	24 DC	580	12.98	10.95	10.40	9.86

RELAY SOCKETS

A complete line of relay accessories and sockets can be found on page 218. Cut handling expenses and paperworkmake Allied Electronics your one source for all your relay needs.

General Purpose Enclosed Relays

CLASS W88CP PLUG-IN ENCLOSED RELAYS



Small, all-purpose 10-amp relays for AC ad DC applications. Enclosed in 40-279 crackproof dust cover of polycarbonate resins—clear as glass, tough as steel. Silver alloy contacts. Gold flashed. Actual weight only 3 oz. 3PDT has 11-pin octal plug; others, 8-pin octal plug. *Has neon Indicator. Dimensions: 21/6x11/6x11/6x111

Canal	Mfr's	Coil		EACH			
Stock No.	Type W88-	Coil Volts Action 1-		10- 24	25- 49	50- Up	
850-0314 850-0399 850-0453	ANCPX-2°	115 AC 115 AC 12 DC	DPDT	12.83 14.88 12.15	10.26 11.90 9.72	6.86 7.96 6.50	6.48 7.52 6.14
850-0318 850-0466		115 AC 12.3 mA		10.64 14.95	9.00 11.96	8.53 8.00	8.05 7.56



CLASS W88HP SEALED PLUG-IN RELAYS

Hermetically sealed and filled with a dry, high purity gas. Silver aldry, octacts rated 10A. Nominal power: AC units, 3VA; DC, 1.5W. "DPDT, 8-in. octal plug. 13PDT, 11-pin. Dimensions: 2½2 x 1½6". Shpg. wt. 6 oz.

Stock	Mfr's	Coil	EACH				
No.			10- 24	25- 49	50- Up		
850-0490	W88AHPX-24° W88HPX-33° W88HPX-34°	115AC 12DC 100 24DC 400	12.70	11.28 10.74 10.74	10.18	10.09 9.01 9.61	
	W88AHPX-36† W88HPX-51†	115AC 24DC 400			12.69 12.17	11.99 11.49	



MINIATURE RELAYS

Especially suitable for computers, data processing equipment — wherever uncompromising quality is required. Contacts are 4PDT, rated 5 amps at 30 VDC or 120 VAC resistive. Push-to-test feature. U.L. Recognized. Dimensions, 11%4x5%4x11%4". Av. shpg. wt. 11% oz.

Stock	Mfr's	Coil		EAG	EACH		
No.	Type	Volts	1-9	10-24	25-49	50-Up	
B0Z-1816	1310-4C	120 AC	9.20	7.36	5.09	4.81	
B02-1830	1315-4C	6 DC	8.75	7.00	4.84	4.57	



1330/1335 DPDT 5-AMP RELAYS

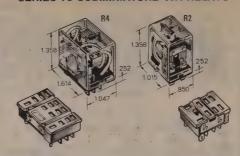
Plug-in miniature relays measure only 1½32×34×34,47′ deep. Socket cut-out, .759x.830″ with .025″ radii at 4 corners. For chassis .031 to .062″ thick. 5 amp contact at 30 VDC or 120 VAC resistive. Crystal-clear Lexan cover. Shpg. wt. 1 oz.

CALL	886-1-	0-11		EA	CH	
Stock No.	Mfr's Type	Coil Volts	1-9	10- 24	25- 49	50- Up
802-1852 802-1856 802-1860 802-1862	1330-2C-6A 1330-2C-12A 1330-2C-120A 1335-2C-6D 1335-2C-12D 1335-2C-24D	6 AC 12 AC 120 AC 6 DC 12 DC 24 DC	6.43 6.43 6.30 6.30	5.14 5.14 5.04 5.04 5.04	3.56 3.56 3.48 3.48 3.48	3.37 3.37 3.29 3.29 3.29
	1330-1ST Sold 1330-2PC PC					Up .76

SEE RELAY SOCKETS ON A FOLLOWING PAGE

Allied Electronics has a complete line of relay accessories and sockets. Cut handling expenses and paperwork in purchasing and receiving—make Allied Electronics your one source for all your relay needs. Allied Electronics has the best order filling record in the electronics industry.

SERIES 76 SUBMINIATURE 10A RELAYS



For heavy duty industrial or consumer applications. Provides continuous multipole switching of resistive loads up to 10A, each pole, at 120 VAC. Life: mechanical, 10,000,000 operations; electrical, 100,000 operations. Temperature range: AC, —40°F to +131°F; DC, —40°F to +158°F. Use AD74, AD75, AD84, AD85 sockets.

EACH EACH									
Stock No.	Mfr's Type & Coil Volts	Coil Ohms	Ac- tion	1-	10- 49	50- 74	75- Up		
917-2000 917-2001 917-2002 917-2003 917-2004 917-2005	76R4-12DC-SCO	40 160 650 25 100 350	OPDT OPDT OPDT 4PDT 4PDT 4PDT 4PDT	7.40 7.40 7.40 10.03 10.03 10.03	5.92 5.92 5.92 8.02 8.02 8.02	3.75 3.75 3.75 5.08 5.08 5.08	3.56 3.56 3.56 4.82 4.82 4.82		
917-2007 917-2008	76R2-120AC-SC0 76R4-24AC-SC0 76R4-120AC-SC0	3900 78 2400	DPDT 4PDT 4PDT	9.10 10.88 12.20	7.28 8.70 9.76	4.61 5.51 6.18	4.37 5.22 5.85		



SERIES 77 GENERAL PURPOSE LOW COST MINIATURE RELAYS

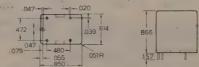
Versatile relay for use in small business machines, alarm systems, automatic toys and communication systems. Silver, gold plated contacts provide 100,000 operations at 28 VDC or 120 VAC and mechanical life of 5 million operations at 2 amp resistive loads. Temp. range, +14 to +150°F. Solder terminals.

Stock	Missio Tuno 9	Coil	A.		EAC	CH	
No.	Mfr's Type & Coil Volts	Ohms	Ac- tion	1- 9	10- 49	50- 74	75- Up
917-2050 917-2051 917-2052 917-2053 917-2054 917-2055	77R2-6DC 77R2-12DC 77R2-24DC 77R3-6DC 77R3-12DC 77R3-24DC	125	DPOT DPDT DPDT 3PDT 3PDT 3PDT 3PDT	4.23 4.23 4.23 7.40 7.40 7.40	3.38 3.38 3.38 5.92 5.92 5.92	2.14 2.14 2.14 3.75 3.75 3.75	2.03 2.03 3.56 3.56
917-2056 917-2057 917-2058 917-2059	77R2-24AC 77R2-120AC 77R3-24AC 77R3-120AC	5750 250	DPDT DPDT 3PDT 3PDT	5.53 6.95 7.50 9.00	4.42 5.56 6.00 7.20	2.80 3.52 3.80 4.56	3.60



SERIES 78 GENERAL PURPOSE SUBMINIATURE PC RELAY

Low cost, subminiature relay for PC use. Polypropylene case for ease of handling and reduction of contact contamination. Positive response to power coll signals as low as 4 watts. One million mechanical operations, 100,000 electrical operations. Temp. range, +14 to +158° F.



Carel	Mfr's Type & Coil Volts	Coil Ohms	Ac- tion	EACH				
Stock No.				1- 9	10- 49	50- 74	75- Up	
917-2070 917-2071 917-2072 917-2073	78RE1-6DC 78RE1-12DC 78RE1-24DC 78RE1-120AC			2.45	1.96 2.18	1.25 1.25 1.40 2.15	1.19	



SERIES 600 MINIATURE GENERAL PURPOSE RELAYS

GENERAL PURPOSE HELAYS

Miniature sensitive relays with tamperproof nylon dust cover. Compact size with
PC terminals. Ideal for remote control,
warning systems, power amplifler, other
light commercial/industrial uses, Recognized under the Component Program of
Underwriters' Laboratories. High reliability and long life at rated loads. Palladium
crossbar contacts; dry circuit to 2 amps
resis. at 28VDC or 115VAC. Contacts:
SPDT except 683 type, DPDT. Nom. DC
coil power: SPDT, 100 mW; DPDT, 360
mW. 1.2x1.2x0.75". Wt. 1 oz.

	2000					EACH			
Stock	Mfr's	Coil		1-1	25-	50-	100-	500-	
No.	Type	Volts	Ohms	24	49	99	499	Up	
755-7510	603-6V	6 2C	340		2.36				
755-7512	603-12V	12 DC	1350		2.72				
755-7514	603-24V	24 DC	5400		3.14				
755-7542	683-12V	12 DC	400		4.62				
755-7521	623-115V	115 AC			3.81				
755-7520	623-24V	24	135	4.25	3.40	2.41	2.10	2.00	
755-7541	683-6V	6			4.28				
755-7544	683-24V	24	150	6.27	5.02	3.57	3.11	3.01	

17/6- TYPE 59 SPDT SNAP-SWITCH RELAYS



Snap-switch contact assembly provides positive operation whether input signal changes slowly or abruptly. Pin-hinge armature construction for mechanical life of 1 million oper. Contacts rated 2A. Sensitivity, 300 mW. Has dust cover, octal plug; 1%6×11%2″. 1½ oz.

	Mfr's Type		EACH						
	Stock No.	and Coil Voltage	Coil Ohms	1-	10- 99	100- 249	250- Up		
	917-0752	59A01D-24DC	1800	8.72	6.98	4.42	4.19		



SERIES 70 GENERAL-PURPOSE MINIATURE SENSITIVE RELAYS

Miniature relay for low-level 5 amp multiple-circuit switching. U.L. Approved. Directly interchangeable with most other types. Life of 50 million operations. Temperature range: +14°F to +158°F. Series 70°s pick up signals as low as 85 mW. DPDT. Shpg. wt. 1 oz.

Stock	Type No.	Pickup	Dropout	EACH				
No.	and Resistance	Max.	Min. mA	1-9	18- 49	50- 74	75- Up	
	70R2S-2500 70R2S-5000	5.8- 4.1			5.40 6.00			



TYPE 62 UNIVERSAL MINIATURE PLUG IN RELAYS

Types with standard contact rated 2 amps at 28 voits DC/115 voits AC; SCO contacts, 5 amps at 28 voits DC; 4 amps at 115 voits AC. Sensitivity, 700 milliwatts (6PDT, 1.4 watts). Sensitive types (S) 1 amp at 28 VDC. Stud mount or plug in to solder terminal socket or choice of three printed circuit terminal sockets (AD41, AD42, AD43, .100" grid). 11 1/24 x 4%... (HXD) 2P, 61/24" wide; 4-pole, 11 1/24" wide; 6-pole, 11 1/24". wide. Shpg. wt. 1 oz.

	Mfr's Type				EA	CH	
Stock	and	Coil	Ac-	1-	10-	50-	75-
No.	Coil Volts	Ohms	tion	9	49	74	Up
917-0759	62R2-12DC	185	DPDT	6.00	4.80	3.04	2.88
917-0760	62R2-24DC	700	DPDT	6.00	4.80	3.04	2.88
917-0762	62R2-110DC	15000	DPDT	8.90	7.12	4.51	4.28
917-0779	62R4-12DC	185	4PDT	6.65	5.32	3.37	3.20
917-0780	62R4-24DC	700	4PDT	6.65	5.32	3.37	3.20
917-0802	62R6-24DC	430	6PDT	8.65	6.90	4.37	4.14
917-0763	62R2-60C-SCO	52	DPDT	6.20	4.96	3.14	2.97
917-0764	62R2-12DC-SC0	185	DPDT	6.20	4.96	3.14	2.97
917-0765	62R2-24DC-SCO	700	DPDT	6.20	4.96	3.14	2.97
917-0785	62R4-12DC-SCO	185	4PDT	7.13	5.70	3.61	3.42
917-0786	62R4-24DC-SCO	700	4PDT	7.13	5.70	3.61	3.42
917-0808	62R6-24DC-SCO	430	6PDT	9.48	7.58	4.80	4.55
917-0809	62R6-48DC-SCO	1550	6PDT	9.85	7.88	4.99	4.73
917-0817	62R6T-12DC	90	6PDT	9.65	7.72	4.89	4.64

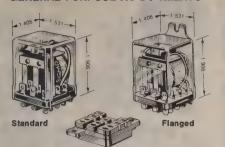
SENSITIVE RELAYS

Stock No.	Type and	Pickup mW .	EACH						
	Coil Ohms		1-	10- 49	50- 74	75- Up			
917-0769	62R2S-2500	85	6.65	5.32	3.37	3.20			

202 • ALLIED

General Purpose Enclosed Relays

GENERAL PURPOSE AC-DC RELAYS



For light to medium load switching. Have .187" terminals for soldering, quick-connect or plugging into sockets. Electrical life, one million operations at 28 volts DC; 500,000 operations at 115 volts AC. Mechanical life, 100 million operations. Contacts rated 10 amps, 1.2 watts nominal power. Temperature range, Minimum, —49°F; maximum, AC one and two pole, +131°F; DC, +158°F. Order printed circuit or solder terminal sockets from socket page. 68R2, DPDT; 68R3 and 68R34, 3PDT with flanged case. U.L. Recognized. Shpg. wt. 3 oz.

AC TYPES

and Mark		COIL DATA			EACH			
Stock No.	Mfr's Type	Nom.	Ohms	Pkup	1-	10-	50- 74	75- Up
917-0913	68R3-115AC-SCO							

DC TYPES

917-0898	68R2-12DC-SCO	12	120	9	7.22	5.78	3.66	3.47
917-0900	68R2-24DC-SC0	24	470	18	7.22	5.78	3.66	3.47
917-0910	68R3-24DC-SCO	24	470	18	8.25	6.60	4.18	3.96

AC AND DC TYPES

Flanged case for direct-chassis mounting.

917-0923 68R34-115AC-SC0 115 2K 98 9.10 7.28 4.61 4.37 917-0920 68R34-24DC-SC0 24 470 18 8.25 6.60 4.18 3.96

TYPE 67 AC AND DC 4PDT RELAYS

• Full 5 Ampere Rating AC or DC
• Standard or PC Sockets

• Standard or PC Sockets

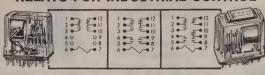
Similar to Type 62 but with Inline rather than stacked contacts and choice of sockets. Contacts rated 3A., Sensitivity, 1.2 VA for AC type, 900 milliwatts for DC types. Temp. range, 4°F to +140°F. Comes complete with plastic dust cover, designed for stud mounting with 14-prong plug. U.L. Recog. 1/10 hp. Order type AD28 or AD29 socket. 1%x17%4x5%4". Wide range of industrial, military, commercial applications.



appili	cations.									
	Mfr's Type		EACH							
Stock and Coil Volts	Coil Ohms	1- 9	10- 49	50- 74	75- Up					
917-0863 917-0867	67R4-24C 67R4-115AC	160 3900	9.37 10.12	7.50 8.10	4.75 5.13	4.50 4.86				
917-0862 917-0864 917-0865	67R4-12DC 67R4-24DC 67R4-48DC	160 650 2600	8.25 8.25 8.62	6.60 6.60 6.90	4.18 4.18 4.37	3.96 3.96 4.14				
917-0060	AD28 Sdr. Term. Skt.		1.05	.84	.57	.54				

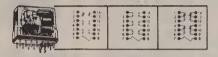
RELAYS FOR INDUSTRIAL CONTROL

GENERAL PURPOSE RELAYS



FRAME 219. Twelve pin. Basic Type; Manual Actuator (M); Bifurcated contacts*. Specify coil voltage.

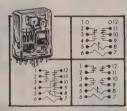
Stock	Mfr's	Contacts	Volts		EA	CH	
No.	Туре	Contacts	VOIES	1-9	10-24	25-49	50-Up
929-2173	219BBXD	DPDT & 2 NO	24AC	22.26	21.50	20.43	19.35
929-2174	219BBXD	DPDT & 2 NO	115AC	22.26	21.50	20.43	19.35
929-2175	219BBXD	PDDT & 2 NO	230AC	22.26	21.50	20.43	19.35
929-2178	219BBXD	DPDT & 2 NO	24DC	22.26	21.50	20.43	19.35
929-2179	219BBXD	DPDT & 2 NO	115DC	22.26	21.50	20.43	19.35
929-2184	219BBXPM	DPDT & 2 NO	115AC	24.13	23.30	22.14	20.97
929-2194	219BBXP33*	DPDT & 2 NO' DPDT, 1 NO, 1 NC DPDT, 1 NO, 1 NC DPDT, 1 NO, 1 NC	115AC	28.27	27.30	25.94	24.57
929-2144	219ABAP		115AC	22.26	21.50	20.43	19.35
929-2148	219ABAP		24DC	22.26	21.50	20.43	19.35
929-2149	219ABAP		115DC	22.26	21.50	20.43	19.35



4 PDT RELAYS

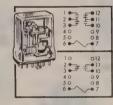
FRAME 219. 14-pin socket. Same options as model above. Coils: 60 Hz AC, 115V; DC, 24V. Contact rating: 10A, 115VAC resistive.

Stock Mfr	Mfr's	C44-	Volts		EA	СН	
No.	Туре	Contacts	Voits	1-9	10-24	25-49	50-Up
929-2294 929-2298	219XDXP 219XDXP	4 PDT 4 PDT	115AC 24DC	25.27 25.27	24.40 24.40	23.18 23.18	21.96 21.96

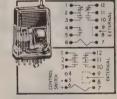


SFOUENCE

FRAME 211. 8-tooth rat-chet, 2-contact cams. R suf-fix transfer on release of coil power. 5A, 115 VAC res.



TIME DELAY FRAME 236. "On Delay" net-work energizes relay. Preset.



LATCH

FRAME 255. Relays mechanically latched, electrically-reset versions of 219 relay. 10A, 115 VAC.

Stock	Mfr's	Contonto	Contacts Volts		EA	CH	
No.	Туре	Contacts	VOILS	1-9	10-24	25-49	50-Up
929-2514 929-2522 929-2524 929-2504	255XBXP 255XCXP 255XCXP 255BXBP	DPDT 3PDT 3PDT 2 NO & 2 NC	115AC 12AC 115AC 115AC	36.66 39.54 39.54 39.54	35.40 38.20 38.20 38.20	33.63 36.29 36.29 36.29	31.86 34.38 34.38 34.38
929-2509 929-2414 929-2124 929-2104	255BXBP 236ABXP 211XBXP 211AXAP	2 NO & 2 NC DPDT & 1 NO DPDT 1 NO—1 NC	115DC 115AC 115AC 115AC	39.54 85.62 37.79 34.17	38.20 82.70 36.50 33.00	36.29 78.57 34.68 31.35	34.38 74.43 32.85 29.70



SINGLE POLE **ENCLOSED RELAYS**

Low cost, totally enclosed relays operate in any position. Isolated coil. U.L. and C.S.A. Listed. Ratings at 125/250 VAC: normally open types, 8 A cont., 25 A inrush inductive; 16 A cont. resistive. Double throw types 8 A continuous, 18 A inrush (inductive). 2%x1%x1½".



Quick-Connect

	WITH SCHEW TERMINALS										
Stock	Mfr's		Coil		EACH						
No.	Type	Contacts	Voltage	1-9	10-24	25-49	50-Up				
668-0001 668-0002 668-0003 668-0004	84-902 84-903 84-906 84-907	SP-N.O. SP-N.O. SPDT SPDT	24 VAC 120 VAC 24 VAC 120 VAC	5.15 5.70 5.70 6.18	4.12 4.56 4.56 4.94	3.11 3.43 3.43 3.70	2.77 3.05 3.05 3.30				

	WIII	1 74 4010	K-COMMEC!) ERMIN	AL-O		
668-0005	84-912	SP-N.O.	24 VAC	5.13	4.10	3.08	2.75
668-0006	84-913	SP-N.O.	120 VAC	5.55	4.44	3.34	2.97
668-0007	84-916	SPDT	24 VAC	5.50	4.40	3.31	2.95
668-0008	84-917	SPDT	120 VAC	6.08	4.86	3.66	3.26

INDUSTRIAL 10 AMP ENCLOSED RELAYS

Frame 314 PLUG-IN. U.L. Recognized as general-purpose industrial type with mechanical life of 10 million operations. Gold plated silver cadmium oxide contacts. Dust-tight clear polycarbonate covers. Contact ratings: 120 VAC, 10 amps, 1/6 hp; 240 VAC, 5 amps, 1/3 hp. 115 VAC, 60 Hz coils have integral neon lamps to signal coil operation.



STANDARD DC TYPES WITHOUT NEON INDICATOR

Stock	Mfr's	Con-	Termi-					
No.	Type	tacts	nals	Voltage	1-9	10-24	25-49	50-Up
929-2749	314XBX48P	DPDT	octal	115 DC	10.63	8.50	6.51	6.17

AC TYPES WITH NEON OPERATION INDICATOR

929-2729	314XAX48PL	SPDT	octal	120 AC	10.78	8.62	6.60	6.26
929-2759	314XBX48PL	DPDT	octal	120 AC	11.40	9.12	6.98	6.62

			DA	SIC DIII	MENSIONS				
Туре	A	В	С	D	Type	Α	В	С	D
Frame 255 Frame 236	33/4 49/16	2 % 2 %	1 ¹⁵ / ₃₂ 1 ¹⁵ / ₃₂	4 ⁹ / ₁₆ 3 ³ / ₄	Frame 219 Encl. 314	3 ¹³ / ₃₂ 2½	2% 1%	115/32 13/8	213/32
Erama 211	19/4	25%	115/22	23/					

A

General Purpose Open Relays; Power Relays

Separate Colls and **Contact Assemblies Let** You Custom-Design Your Own Relays



SERIES 200 RELAY **ASSEMBLIES**

Separate coils (A) and contact assemblies (B) for custom-designing your own relays – use Contact Switch Parts below to add poles. Rated at 115 VAC, noninductive. Std. contact assem. size, 2%x1%x1%x1.4". †Midget: 2%x1%x1%x1%x". Av. shpg. wt. 3 co.

A RELAY ASSEMBLIES

Stock	Mfr's	Coil	EACH					
No.	Туре	Volts	1-9	10-24	25-49	50-Up		
802-1319	200-6A	6 AC	4.05	3.24	2.24	2.12		
802-1327	200-24A	24 AC	4.05	3.24	2.24	2.12		
802-1333	200-120A	120 AC	4.73	3.78	2.61	2.47		
B02-1335	200-240A	240 AC	6.25	5.00	3.47	3.27		
802-1321	200-6D	6 DC	4.40	3.52	2.43	2.30		
802-1325	200-12D	12 DC	4.40	3.52	2.43	2.30		
802-1329	200-24D	24 DC	4.40	3.52	2.43	2.30		

B CONTACT SWITCH ASSEMBLIES

Stock Mfr's		Contacts		EACH					
No.	Type	Action	Amps	1-9	10-24	25-49	50-Up		
802-1311		SPDT	8	3.73	2.98	2.06	1.95		
802-1313		DPDT	8	4.85	3.88	2.69	2.54		
802-1315 802-1317		OPOT 4PDT	12.5	5.45 8.58	4.36 6.86	3.02	2.86		
802-1305		SPDT	10	3.50	2.80	1.94	1.83		
802-1307	200-M2†	DPDT	10	4.28	3.42	2.37	2.24		



Provide unusually heavy power control for their compact size. All are rated 10 amperes at 115 V, 60 Hz AC, except 4PDT types, rated 8 amperes. 1-hole base mounting. Last digits in Mfr's Type No. indicate coil voltage. SPST normally open. Dimensions, 111/16x11/2x1". Wt. 4 07

Stock	Mfr's Type	Action		EA	CH	
No.	and Voltage	Action	1-9	10-24	25-49	50-99
802-0202	640U-A-24AC	SPST	6.03	4.82	3.33	3.15
802-0204	640U-A-120AC	SPST	6.03	4.82	3.33	3.15
802-0207	640U-C-24AC	SPDT	6.80	5.44	3.77	3.56
802-0209	640U-C-120AC	SPDT	6.80	5.44	3.77	3.56
802-0214	640U-2C-24AC	DPDT	8.25	6.60	4.57	4.32
802-0216	640U-2C-120AC	DPDT	8.25	6.60	4.57	4.32
802-0221	640U-4C-120AC	4PDT	11.40	9.12	6.31	5.96
802-0248	645-4C-24DC	4PDT	11.40	9.12	6.31	5.96
802-0250	645-4C-110DC	4PDT	12.38	9.90	6.86	6.48

CLASS W88 OPEN RELAYS



Versatile, low-cost clapper-Versatile, low-cost clapper-type relays provide reliability and long-life adjustment sta-bility. 10 ampere silver alloy contacts. Nominal power for AC units, 3 VA; DC units, 1.5W. DPDT, 250 mW. Size: 11/4 x11/4 x13/4". Wt. 3 oz.

Stock	Marin.	Mfr's Coil Type Volts Actio	Cail		EACH				
No.			Action	1-	10- 24	25- 49	50- Up		
850-0606	W88-X-4	24 DC	SPDT	6.50	5.20	3.40	3.21		
850-0409	W88-AX-8	115 AC	DPDT	8.50	6.80	4.44	4.20		
850-0619	W88-X-17	10mA	DPDT	8.00	6.40	4.18	3.95		
850-0613	W88-X-11	12 DC	3PDT	8.40	6.72	4.39	4.14		
850-0614	W88-X-12	24 DC	3PDT	8.40	6.72	4.39	4.14		

ALL-PURPOSE RELAYS



INDUSTRIAL 10 AMP OPEN

TYPE RELAYS
Frame 314 OPEN TYPE. U.L. Recognized. Gold-plated, silver cadmium oxide contacts. Solder lug terminals are aligned in a molded support with integral insulating barriers. Has 6-32 threaded stud mount and tab. Rated 10 amps, 120 V; 5 A, 240 V. Shpg. wt. 4 oz.

Stock Mfr's					EA	EACH		
No.	Type	Contacts	VAC	1-9	10-24	25-49	50-Up	
929-2709 929-2739 929-2769	314XAX 314XBX 314XCX		115 115 115	5.28 6.43 7.20	4.22 5.14 5.66	3.24 3.94 4.42	3.08 3.74 4.19	

DPDT GENERAL PURPOSE RELAYS



Solenoid action. Can be panel mounted. Rated 12 A continuous, 60 A inrush at 125 VAC; 6 A cont., 35 A inrush at 250 VAC; inductive. Rated 15 A at 277 VAC max., resistive. U.L./C.S.A. Listed. 21/8x21/8x21/8/x21/

668-0009 668-0010 668-0011	91-902 91-903		120 230/240	11.83	8.06 9.46	6.03 6.35	5.36 5.64
668-1000	91-180-1	Socket T	1.02	.76	.68		

3PDT GENERAL-PURPOSE RELAYS



Enclosed contacts; manual operating button. U.L./C.S.A. Listed. Solenoid action. With ¼" quick-connect terminals. Rating: 12 A continuous, 60 A inrush at 125 VAC; 6 A continuous, 35 A inrush at 250 VAC; inductive. Rated 15 A at 277 VAC max., resistive. Wiring terminals included. Size, 2%x 2%x2¾x2.

668-0012	92-901	3DPT	24	12.53	9.78	7.33	6.52
668-0013	92-902	3DPT	120	12.48	9.98	7.48	6.65
668-0014	92-903	3DPT	230/240	12.95	10.36	7.76	6.90

15-AMP ·



Silver contacts rated at 15A, 115V, 60 Hz noninductive load. AC coils usable: —15%, +20% rated voltage; DC coils: —20%, +10%. Requires: AC—6VA, 60 Hz AC; DC—1.5 to 3 W. Single screw centerhole mounting (8-32 tap). Solder lug terminals. Voltage at end of Mir's Type No. AC type U.L. Component Recognized. Wt. 4 oz.

ALL-PURPOSE RELAYS

Stock	ock Mfr's		EACH				
No.	Type	tacts	1-9	10-24	25-49	50-Up	
802-1370 802-1390	240-2C-120AC 240-4C-120AC 245-4C-12DC 245-4C-24DC	DPDT 4PDT 4PDT 4PDT	9.75 14.50 14.50 14.50	11.60 11.60	5.40 8.04 8.04 8.04	5.10 7.59 7.59 7.59	



DPDT 10A RELAYS

Series 900-905. Contacts are 10A at 115 volts. AC resistive. One-piece switch mounting clips, return springs, molded covers, locked lifters. 111/16x211/16x134.". 5 oz.

041-	tock Coil Stock C		Coil	EACH			
Stock No.	Volts	No.	Volts	1-	10- 24	25- Up	
802-1450 802-1452 802-1454	14 AC 120 AC 240 AC	802-1456 802-1458 802-1460	6 DC 12 DC 24 DC	4.00 4.00 4.00	3.20 3.20 3.20	2.05 2.05 2.05	

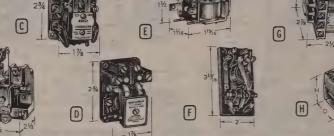
TYPE 65 COMMERCIAL SPDT RELAYS



Compact commercial relay gives post tive response to low power signals High adjustment stability, 5 million oper. mechanical life. Contact ratec 1A. Sensitivity, 90 mW. 65F1 Is screw mtg. with solder term. %4.x1\frac{11}{6}\frac{1}{6}

Stock No.	Mfr's Type	Coil Ohms	EACH				
	and Coil Volts		1. 24	25- 99	100- 499	500- Up	
917-0856 917-0851 917-0852 917-0857 917-0854 917-0855	65F1A-6DC 65F1A-12DC 65F1A-24DC 65FP1A-6DC 65FP1A-12DC 65FP1A-24DC	410 1640 6560 410 1640 6560	3.20 3.20 3.20 3.38 3.38 3.38	2.56 2.56 2.56 2.70 2.70 2.70	1.62 1.62 1.62 1.71 1.71	1.53 1.53 1.53 1.62 1.62 1.62	

INDUSTRIAL POWER RELAYS



A 30-AMP POWER RELAYS

Have DPST N.O., SPDT or DPDT silver cadmium-oxide contacts rated 30 A cont. at 120 VAC, 10A at 600 VAC. Front panel mounting with screw connec-tion. AC units 10 VA; DC, 2 watts. U.L. and CSA Listed. Optional Features Available on Special Order: • 250" Quick-Connect Terminals • SPDT 115V 10A Auxiliary Contacts (Fig. B)

Stock	Mfr's	1.		EACH				
No.	Type	Coil	1-	10- 24	25- 49	50- Up		
929-3024 929-3120 929-4110	425BXX 425BXX 425BXX	24 VAC 120 VAC 110 VDC	8.53 8.53 9.60	6.82 6.82 7.68	5.23 5.23 5.94	4.95 4.95 5.63		
		SPDT						

929-5120 425XAX 120 VAC 7 50 6 00 4 61 4 37

929-6012 929-6024	425XAX 425XAX	12 VDC 24 VDC	7.50 7.50	6.00 6.00	4.61 4.61	4.37
		DPDT				
020 7042	ASEVOV	12 1/40	44 95	0.00	0.00	C F2

929-7012 929-7024	425XBX 425XBX	12 VAC 24 VAC				
929-7120 929-7240	425XBX 425XBX	120 VAC 240 VAC	11.25	9.00	6.89	6.53

© B1XBX DPDT MIDGET RELAY

For control circuits, small motor operation, etc. Cont. res. ratings 115VAC; 6A@24V; 3A@230VAC; 0.5@115 VDC. Insul. tested at 300V. Coil 115VAC. 929-0716. 1-9 Ea. 20.09 10-24 Ea. 19.40 25-Up Ea. 18.10

D 415XBX SMALL POWER RELAY

For control of instruments, motors, valves, etc. DPDT SCO single break contacts. Contacts cont. 15A@ 115VAC res.; 10A@230VAC. Coll 115V, 50-60 Hz. 929-2010. 1-9...Ea. 10.57 10-24....Ea. 10.30 25-49...Ea. 9.60 50-Up ...Ea. 9.27

E 88KD 50-AMP RELAYS

Silver alloy oxide SPST N.O. contacts rated at 115 VAC or 28VDC res. Terminals accept Faston 250 receptacles on contacts, 110 series on coil.

				EACH			
Stock No.	Mfr's Type	V Ohms		1- 9	10- 24	25- 49	50- Up
850-0525 850-0526	W88KADX-2 W88KDX-1 W88KDX-2 W88KDX-3	115AC 6DC 12DC 24DC	25 100 400	8.30 8.30	6.64	5.01 4.45 4.45 4.45	4.20

F B11AXA RATCHET SEQUENCE RELAY

DPST cam operated contacts repeat a predetermined sequence. Contacts open and close alternately. Cont. 6A@115VAC or 24VDC. 0.5A@115VDC. Coil 115VAC. 929-0719. 1-9 Ea. 38.93 10-24 Ea. 37.60 25-Up Ea. 35.00

G 319XDX 300V PANEL MOUNT RELAY

 4PDT relay with 14 screw terminals. 10A, 115VAC.

 For machine and other 300V service. Clear cover.

 929-1970. 1-9.
 Ea. 16.57

 10-24.
 Ea. 16.00

 25-49.
 Ea. 15.20

 50-Up.
 Ea. 14.40

H REVERSING CONTACTORS

A275KXX. Two 3-pole contactors on common frame, interlocked to prevent simultaneous closure. 1 hp @ 120, 240, 480VAC; 1, 2, 3 phase with all contact switching. 3%82%82%76". U.L. Rec.; C.S.A. A275KXX91. SPDT. aux. contacts on each armature. B175KXX. For heavier loads up to 3 hp. 51/4 x47/16x21/2".

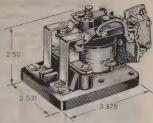
929-0550	A275KXX	24AC	22.26			
929-0553		120AC	22.26			
929-0556	A275KXX	240AC	 22.26	21.50	20.00	19.35
929-0563	A275KXX91		26.82			
929-0730	B175KXX	115AC	 35.30	34.10	33.00	30.69

Power Relays

PR HEAVY-DUTY POWER RELAYS

• For Industrial Control Applications Requiring Long Life and Fast Action

- U.L. Listed Industrial-Type
- Screw Terminals



PR HEAVY DUTY POWER RELAYS

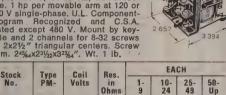
Handle many industrial switching requirements. Silver contacts rated 25 amps except PRA11AYA 20 amps. With heavy screw-terminals. *Indicates auxiliary 5-amp contacts. All are U.L. Listed. AC types also C.S.A. Listed. Nominal power: AC types, 9.8 VA at 50-60 Hz; DC types, 2 watts. Mtg. two 3½" holes, 1½" centers. Sizes: all are 2½" wilde; PR3 and PR5, 2½xx2½"; PR7, 2½x2¾", PR11, 2½x3¾". Shpg. wt. 12 oz.

DC COIL 19 100			AC COILS (50-60 Hz)				
Volts	Res. in Ohms	Voits	Res. in Ohms		Res. in Ohms	Volts	Res. in Ohms
6 24 	18 288	- 6 24 240	.86 12 1.2K	12 110 480	71 6050 4.5K	12 120	3.2 290

Stock	Туре	Coil	Con-		EAC	Н					
No.	PR-	Volts	tacts	1- 9	10- 24	25- 49	50- Up				
886-0971 886-0972 886-0973 886-0974 886-0976	3AY0 3AY0 3AY0 3AY0 3DY0	12 AC 24 AC 120 AC 240 AC 12 DC	SPST SPST SPST SPST SPST	9.58 9.58 9.58 10.55 9.58	7.66 7.66 7.66 8.44 7.66	5.13 5.13 5.13 5.65 5.13	4.86 4.86 4.86 5.26 4.86				
886-0979 886-0981 886-0982 886-0983 886-0985	5AY0 5AY0 5AY0 5AY0 5DY0	6 AC 24 AC 120 AC 240 AC 12 DC	SPDT SPDT SPDT SPDT SPDT	10.03 10.03 10.03 11.10 10.03	8.02 8.02 8.02 8.88 8.02	5.37 5.37 5.37 5.94 5.37	5.09 5.09 5.09 5.63 5.63				
885-0985 886-0987 885-0989 886-0990 886-0991	50Y0 50Y0 7AY0 7AY0 7AY0	24 DC 110 DC 12 AC 24 AC 120 AC	SPDT SPDT DPST DPST DPST DPST	10.03 11.45 11.28 11.28 11.28	8.02 9.16 9.02 9.02 9.02	5.37 6.13 6.03 6.03 6.03	5.09 5.81 5.72 5.72 5.72				
886-0994 886-0995 886-0995 886-0996 886-1002	7AY0 7DY0 7DY0 7DY0 7DY0 11AY0	240 AC 12 DC 24 DC 110 DC 6 AC	DPST DPST DPST DPST DPDT	12.25 11.35 11.35 12.70 14.83	9.80 9.08 9.08 10.16 11.86	6.56 6.08 6.08 6.79 7.93	6.21 5.76 5.76 6.44 7.52				
886-1003 886-1004 886-1005 886-1006 886-1007	11AY0 11AY0 11AY0 11AY0 11AY0	12 AC 24 AC 120 AC 240 AC 480 AC	OPDT OPDT OPDT OPDT OPDT	14.83 14.83 14.83 14.90 11.86	11.86 11.86 11.86 11.92 10.00	7.93 7.93 7.93 8.46 9.50	7.52 7.52 7.52 8.01 9.00				
886-0999 886-1000 886-1008 886-1009 886-1010 886-1011	A11AYA A11AYA 11DYO 11DYO 11DYO 11DYO 11DYO	24 AC 120 AC 6 DC 12 DC 24 DC 110 DC	DPDT* DPDT* DPDT DPDT DPDT DPDT DPDT	12.09 12.09 14.83 14.83 14.83 14.57	10.20 10.20 11.86 11.86 11.86 11.66	9.69 9.69 7.93 7.93 7.93 8.65	9.18 9.18 7.52 7.52 7.52 8.19				

PM17 4PDT 25-AMP POWER RELAYS

Compact. For polyphase and heavy-duty switching. 4PDT. Silver-cad-mium-oxide contacts rated at 25 amps, 220 V, 50-80 Hz, non-inductive. 1 hp per movable arm at 120 or 240 V single-phase. U.L. Component-Program Recognized and C.S.A. Listed except 480 V. Mount by key-hole and 2 channels for 8-32 screws on 2x2½" triangular centers. Screw term. 24%4X23\(\frac{1}{2}\)x3\(\frac{1}{2}\)x3\(\frac{1}{2}\)x3\(\frac{1}{2}\), Wt. 1 lb.



Stock	Туре	Coil	Res.		EACH			
No.	PM-	Volts	in Ohms	1-9	10- 24	25- 49	50- Up	
886-0950 886-0951 886-0952 886-0953	17AY 17AY 17AY 17AY	12 AC 24 AC 120 AC 240 AC	1.4 5.0 120 587	18.90 18.90	15.95 15.95 15.95 16.60	15.15 15.15	14.36 14.36	
886-0956 886-0957 886-0958	17DY 17DY 17DY	12 DC 24 DC 110 DC		18.09	15.25 15.25 15.90	14.49		

99B HEAVY DUTY POWER RELAYS

Similar to standard Class 99 (right), but with blowout magnet for DC are quenching and extended DC switching capability. DPDT contacts rated 10 A. Power: W99ABX-6, 10 VA; W99BX11, 2 W. 2½ x 2½ x 2%«".

Stock Mfr's		C	il		EACH 1-9 10-24 25-49 50-Up				
No.	Type	Volts	Ohms	1-9	10-24	25-49	50-Up		
	W99ABX-6 W99BX-11								

MR MEDIUM-DUTY POWER RELAYS

Medium-duty power relays for small motors, transmitters and other applications. Contacts %2" diameter silver, rated 8 amps, except *10 amps. SPST relays are normally open. Sizes: SP units, 11½6x11½7x23³½7"; PD units, 2x2¾6x21½2"; 3-pole, 2x2¾6x21¾2"; Mounting: ½2" diameter holes on 2¼" centers for MR 3 and MR11, 2%6" centers for MR5 and MR14.



SPST*

Stock Mfr's No. Type	Mfr's	Coil	Coil	EACH			
	Volts	Ohms	1-9	10- 24	25- 49	50- Up	
886-0886 886-0887 886-0890	MR3A MR3A MR3D	24 AC 120 AC 12 DC	50.0 1250.0 96.0	9.40 9.40 8.43	7.52 7.52 6.74	5.04 5.04 4.51	4.77 4.77 4.28
			SPDT				
886-0895	MR5A	24.3	2 75	9 35	6 60	A A7	A 22

SPUI									
886-0895	MR5A	6 AC	2.75	8.35	6.68	4.47	4.23		
886-0897	MR5A	24 AC	50.0	8.35	6.68	4.47	4.23		
886-0898	MR5A	120 AC	1250.0	8.35	6.68	4.47	4.23		
886-0899	MR5A	240 AC	4600.0	9.40	7.52	5.04	4.77		
886-0900	MR5D	6 DC	24.0	7.80	6.24	4.18	3.96		
886-0901	MR5D	12 DC	96.0	7.80	6.24	4.18	3.96		
886-0902	MR5D	24 DC	360.0	7.80	6.24	4.18	3.96		
886-0903	MR5D	110 DC	8000.0	8.98	7.18	4.80	4.55		

DPDT									
886-0908 886-0909 886-0910 886-0911	MR11A MR11A MR11A MR11A	12 AC 24 AC 120 AC 240 AC	50.0 1250.0	11.90 11.90 11.90 12.70	9.52 9.52 9.52 10.16	6.37 6.37 6.37 6.79	6.03 6.03 6.03 6.44		
886-0912 886-0913 886-0914	MR11D MR11D MR11D	6 DC 12 DC 24 DC	24.0 96.0 360.0	11.18 11.18 11.18	8.94 8.94 8.94	5.99 5.99 5.99	5.67 5.67 5.67		

MB3D 60-AMP MINIATURE DC RELAYS

For very high current applications. For very high current applications. Contact arms are heavy brass with large silver contacts. Solder terminals. Rated 60 amps @ 28 VDC, resistive. SPST, double break, normally open. 1% x27₃₂x11½ ". Mounting: Four 3-48 holes on %x3½" centers. Both relays are type MB3D. Wt. 3 oz.



Stock	Coil	Ohms	ıs mA EA		СН		
No.	Volts	Onmo	11175	1-9	10-24	25-49	50-Up
886-0835 886-0836	12 DC 24 DC	62.3 245.0	193 98	13.50 13.50	10.80 10.80	7.22 7.22	6.84 6.84

MERCURY PLUNGER RELAYS







MINIATURE POWER RELAYS

Compact units capable of handling loads nearly twice that of ordinary armature-type units of equal size. Hermetically sealed, mercury-to-mercury contacts. No contacts to pit, stick or corrode. Full rating with inductive or resistive loads. Coll current, .042 amp, single pole; .080 amp, 2 pole. Handling capability is 20 amperes. For 120 VAC, 50-60 Hz. 11/4 lbs.

Stock No.	Type	Cont.	Size	1-9	10-Up
850-0041 850-0042			3x1 1/2" 4x1 1/2"	20.61 21.46	15.42 16.06
					-

STANDARD DUTY

Rated 35 amps (per pole) at 120 VAC. Coil oper. cur.
WEM-1 .050 A; WEM-11, 120 A. U.L. Recognized. 120 V,
50-60 Hz AC. Shpg. wt. 2 lbs.

				NAME AND ADDRESS OF TAXABLE PARTY.	
850-0044	WEM-1	SP NO	4¾x2½x2½"	23.31	
850-0045	WEM-11	2P NO	5¼x4x3¾"	45.06	

HEAVY DUTY-60 AMPS

Type WHD-1 rated 60 amps for 120 V and 35 amps for 240 V, 60 Hz AC. Type WHD-11 2 pole relay; each pole, 60 amps at 120 V, and 35 amps at 240 V. Contact resistance: 4 milliohms maximum. Typical open contact insulation resistance of 20 kM ohms at 500

VDC. U.L. R	ecognized	. 120 V,	60 Hz AC. 3 lb	S.	
850-0046 850-0047			23/8x51/4x33/4" 23/8x53/4x33/4"		25.81 46.78

Front-mounted load and coil terminals. Rated 100 A at 120 V, AC or 12 kW resistive load capacity. Coil operating current is .260 amps. Contact resis. 2 milliohms max. Mounting slots: Continuous center to center spacing 2\%" to 3\%". 4 lbs.

850-0900 \[\] 100-1 \[\] SP NO \[\] 7x3\%2x3\%" \[\] 66.52 \[\] 49.79

ABC 10-AMP RELAYS

Terminals fit snap-on connectors, or may be dip-soldered to printed circuit. Snap-on screw adapters included. 10 A DPDT silver contacts. AC types U.L. Recog. C.S.A. Listed. Dust covers, mount by one



Stock	Mfr's	Coil		EA	CH	
No.	Туре	Type	1-9	10-24	25-49	50-Up
886-0018 886-0019 886-0021 886-0022	ABC11AY ABC11AY ABC11DY ABC11DY	120 AC 240 AC 12 DC 24 DC	14.65 10.49 14.65 14.65	11.72 8.85 11.72 11.72	7.84 8.41 7.84 7.84	7.42 7.97 7.42 7.42

2600 SERIES 25 AMP RELAYS

Inverted coil construction protects armature and contacts. DPDT AC coils rated at 240 V cont. with 75% PF. Operating requirement 9.5 VA, 60 Hz. Press-to-teat armature level for convenient manual circuit for the contact of the convenient manual circuit for the contact of the convenient manual circuit for the contact of t cuit testing, 12 oz.



Stock			EACH				
No.	and Voltage	1-9	10-24	25-49	50-Up		
802-2032	2600U-DPDT-24AC	12.07	11.13	10.02	9.46		
802-2033	2600U-DPDT-120AC	12.07	11.13	10.02	9.46		
802-2034	2600U-DPDT-240AC	12.46	11.47	10.32	9.75		
802-2035	2605U-DPDT-12DC	12.07	11.13	10.02	9.46		
802-2037	2605U-DPDT-110DC	12.46	11.47	10.32	9.75		
802-2038	2620U-DPST-24AC	11.46	10.56	9.50	8.98		
802-2039	2620U-DPST-120AC	11.46	10.56	9.50	8.98		
802-2041	2625U-DPST-12DC	11.46	10.56	9.50	8.98		
802-2042	2625U-DPST-24DC	11.46	10.56	9.50	8.98		
802-2043	2625U-DPST-110DC	11.81	10.88	9.79	9.25		
802-2030	2600U-QC Term Kit	1.55	1.24	.86	.81		

20 AMP SPST AC RELAYS

Rated at 230 V, 60 Hz AC non-inductive load. %" dual contacts on phenolic block tested at 1500 V breakdown to ground. Silver alloy SPST N.O. contacts, 6 oz.



Stock No.	Type and	Coil	EACH				
	Coil Volts	Ohms	1 - 9	10- 24	25- 49	50- Up	
802-0165 802-0167	IR-220-A120AC IR-220-A240AC		12.33 12.98	9.86 10.38	6.82 7.18		

TYPE 55 POWER RELAYS

Multiple switching of resistive loads up to 15 A at 230 VAC or 10 A at 30 VAC. Solder terminals. Type 55F3. $27_{22} \times 11\%_6 \times 11\%_6 \%$; Screwmount. 7 oz.



No. and	Mfr's Type		oil Ac- hm tion	EACH				
				1-	10- 49	50- 74	75- Up	
917-0705 917-0711	55F3-24DC 55F4-120AC	327 635	3PDT 4PDT	14.91 18.04	11.93 14.23	11.31 13.68	10.71 12.96	

CLASS 99 RELAYS

For high current switching. Base di-electric strength, 1500 VAC rms. Screw terminals (‡). Listed as across the line



Class 99 SPDT Relay. Single pole, double throw contacts (1 form "C") rated 25 amperes. $2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{2}$ ". 8 oz.

Stock No.	Mfr's	Coil		EACH				
	Type	Volts	Ohms	1-	.10- 24	25- 49	50- Up	
850-0690	W99AX-2	115AC		9.95	7.96	4.83	4.54	

Class 99 DPST Relay. Double pole, single throw contacts (2 from "A") N.O. rated 25 amps. $2\%_6 x2\%_2 x2\%_2$ ". 9 oz. 850-0697 W99AX-9 115AC 11.67 8.34 5.67 5.34 850-0795 W99X-11 240C 290 11.17 8.94 5.42 5.10

tacts (2 form "C"				
850-0693 W99AX-5 850-0694 W99AX-6 850-0790 W99X-6 850-0791 W99X-7	115AC 230AC 12DC 70 24DC 290	15.10 14.20	7.34 6.90	6.74 6.90 6.50 6.51

‡Class 99 SPST-N.O.-DB Relay. Normally open, double-break contacts (1 form ''A'') rated 50 amps. $2\frac{1}{2x}\times2\frac{1}{2}$ x $2\frac{1}{2}$ ". Av. wt. 8 oz.

850-0676	W99ADX-1 W99ADX-2	115AC		9.87	7.90	4.79 4.79	4.51
850-0721 850-0723	W99DX-2 W99DX-4	11000	6000	9.37	8.04	4.55	4.28

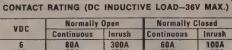
Class 99 25-Amp DPDT Relay with SPDT Aux. Switch. 10 VA. Size: $2\frac{1}{2}x2\frac{1}{2}x2\frac{1}{6}$ ". Shpg. wt. 11½ oz.

Stock	Mfr's Type	Coil		EACH			
No.	Туре	Volts	1-4	5-9	10-24	25-Up	
350-0706	W99AX-56	115AC	17.50	14.97	13.47	12.72	

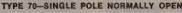
AC/DC Contactors, Relays, Switching Relays

HEAVY DUTY DC POWER CONTACTORS

Feature non-turning studs; drawn steel dust proof en-closure; copper stud pow-er & coil terminals; double bread rotating disc mov-able contact; solenoid ac-tuated. Cap down mount-



VDC	Normally	Open	Normally Closed		
ADC	Continuous	Inrush	Continuous	Inrush	
6	80A	300A	60A	100A	
12	80A	150A	60A	60A	
24-36	50A	50A	30A	30A	



Four terminal contactor with isolated continuous duty coil for trouble free operation. All necessary hardware included copper contacts, except *silver. Size: 21/2 x 31/2

		C	Coil		EACH				
Stock No.	Mfr's Type	VDC	ResΩ @25°C	1-9	10-24	25-49	50-Աք		
668-2001 668-2002 668-2003 668-2006	70-901 70-902 70-903 70-906*	6 12 24 12	4 19 60 19	6.63 6.63 6.63 11.58	5.30 5.30 5.30 9.26	3.97 3.97 3.97 6.95	3.53 3.63 3.53 6.17		

TYPE 70-SINGLE POLE NORMALLY OPEN

Ruggedly constructed three terminal contactor with continuous duty coil that is grounded to case. Copper contacts. Includes hardware. Size: 2½ x 3½ x 2½".

668-2010	70-914	12	19	6.63	5.30	3.97	3.53

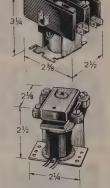
TYPE 70-SINGLE POLE DOUBLE THROW

12 VDC six terminal contactor with isolated continuous duty coil. Choice of two contact types, Mfr's Type 70-910 N.O.-N.C. silver and Mfr's Type 70-922 N.O. copper-N.C. silver). Includes all hardware for installations. Size: 3% x 3% x 3% x 2% x 2% // x 2% /x 2% /

668-2012	70-910	12	19	16.50	13.20	10.40	9.24
588-2022	70-922	12	19	15.28	12.22	9.32	8.30







AC POWER RELAYS

TYPE 129-SINGLE POLE NORMALLY OPEN Totally enclosed in hi-impact case. Double-break contacts. Screw or 1/4" quick connect termination. U.L. and C.S.A. listed. Non-positional. Contacts rated 250 VAC max.; 1 hp @ 125 V, 2 hp @ 250 V single phase; 2% x 1% x 1%".

Stock Mfr' No. Type	166-10	Coil	Contact	EACH				
	Type	VAC	ind.	Res.	1- 9	10- 24	25- 49	50- Up
668-2030 668-2031		24 120	18A 18A	25A 25A			4.24 4.50	3.82 4.05

TYPE 129AR—SINGLE POLE NORMALLY OPEN
Totally enclosed hi-impact case. Double break contacts.
Same ratings as type 129. U.L. and C.S.A. listed. Size: 2¾ x 2% x 3% ".

668-2035	129AR-901	24	18A	25A	11.258.006.525.87
668-2036	129AR-902	120	18A	25A	11.389.106.605.94

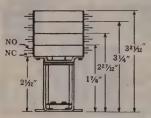
AC POWER CONTACTORS
TYPE 143—TWO POLE NORMALLY OPEN
Features straight-through wiring, auxiliary quick-connect terminals, screw power terminals for #10 solid wire max., double-break contacts. 25 A unit has cover, hardware.
U.L. and C.S.A. Listed. Specs at 277 VAC per pole. Size: 31/4 x 23/6 x 21/2".

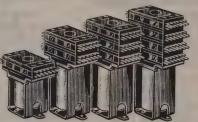
668-2050	143-901	24	8 A Cont.				5.72 5.09
668-2051		120		25A			5.72 5.09
668-2052	143-903	240	inrush		9.55	7.64	5.72 5.09
668-2060	143-914	24	25 A Cont.		12.73	10.18	7.63 6.78
668-2061	143-915	120					7.63 6.78
668.2062	143.918	240	Inruch		12 73	10 18	7 63 6 78

TYPE 75-TWO POLE NORMALLY OPEN Inductive 1 hp/pole @ 115/230 V, 2 poles 18A cont., 90A inrush; res. 25A @ 240 V/pole. PF 0.75. 13" coll leads. Screw power terms:

668-2070	75 001	24	18A	25A	7.30 5.84 4.37 3.85
668-2071	75-902	24 115 240	18A	25A	7.30 5.84 4.37 3.89
668-2072	75-903	240	18A -	25A	7.30 5.84 4.37 3.89

MULTI-POLE 4 TO 48 POLE RELAYS, DOUBLE THROW





TYPE 801 AND 901 RELAYS

- General Purpose and Low Level
- Dust-Tight Enclosures
- 12, 24, 28, 110 VDC Form C Contacts

For general purpose applications, specify Manufacturer's Type 801 with gold-plated button contacts. For low level application or high reliability switching less than one ampere, specify Manufacturer's Type 901 with gold-plated bifurcated contacts. Ideal where large power drain would strain circuit power supplies or generate undesirable heat. Contact assemblies in dust-tight plastic enclosues 1-1/32" w. x 2%" | g.; ht., 13/32" per 12-pole wafer.

SERIES	Application	No. of Poles	Contact Form	Coil Type	DC Coil Voltage
801	Gen. Purpose	4 to 48	_	Continuous	12, 24, 28, 110
901	Low Level	4 10 40	C	Duty	12, 24, 20, 110

Contacts: Series 801: Gold plated, 5 A max. resistive to 150 W. Series 901: Bifurcated gold-plated, 1 A max. resistive to 50 W

Life: Series 801: 20,000,000 @ 100 mW; 100,000 @ 5A 28 V Series 901: 20,000,000 @ 100mW; 100,000 @ 1A 28 V

Contact Resistance: 20 milliohms Ambient Temp. -55° to +85°C Terminals: Mate with 88601 Connectors. Push on, or may be soldered. Dielectric Strength: 100 V rms @ 60 cps Insul. Res.: 500 meg. min.



Stock	Mfr's		Coil		Watts @ Nom.	Cont.	EACH			
No.	Туре	VDC	Ohms	Amps		Arr.	1- 9	10- 24	25- 49	50- Up
774-0075 774-0081 774-0087 774-0088 774-0091	801-4C24 801-8C24 801-12C12 801-12C24 801-12C110	24 24 12 24 110	193. 193. 49. 193. 3963.	.124 .124 .244 .124 .028	3.0 3.0 3.0 3.0 3.0	4PDT 8PDT 12PDT 12PDT 12PDT 12PDT	13.85 18.69 23.36 21.39 21.39	11.60 16.00 20.00 18.30 18.30	11.00 15.20 19.00 17.40 17.40	10.40 14.40 18.00 16.50 16.50
774-0096	801-24C12	12	45.	.267	3.5	24PDT	42.30	36.20	34.39	32.60
774-0097	801-24C24	24	174.	.138	3.5	24PDT	38.79	33.20	31.50	29.90
774-0098	801-24C28	28	227.	.123	3.5	24PDT	38.79	33.20	31.50	29.90
774-0100	801-24C110	110	3450.	.032	3.5	24PDT	38.79	33.20	31.50	29.90
774-0105	801-36C12	12	28.	.429	5.25	36PDT	57.50	49.20	46.70	44.30
774-0106	801-36C24	24	111.	.216	5.25	36PDT	52.72	45.10	42.80	40.60
774-0107	801-36C28	28	150.	.187	5.25	36PDT	52.72	45.10	42.80	40.60
774-0108	801-36C110	110	2355.	.047	5.25	36PDT	52.72	45.10	42.80	40.60
774-0115	801-48C12	12	22	.545	6.6	48PDT	72.96	62.40	59.10	56.00
774-0116	801-48C24	24	94	.255	6.6	48PDT	72.96	62.40	59.10	56.00
774-0172	901-12C12	12	49.	.244	3.0	12PDT	23.36	20.00	19.00	18.00
774-0173	901-12C24	24	193.	.124	3.0	24PDT	21.39	18.30	17.40	16.50
774-0174	901-12C110	110	3963.	.028	3.0	12PDT	21.39	18.30	17.40	16.50
774-0175	901-36C12	12	28.	.429	5.25	36PDT	57.50	49.20	46.40	44.30
774-0176	901-36C24	24	111.	.216	5.25	36DPT	52.72	45.10	42.80	40.60
774-0178	901-36C28	28	150.	.187	5.25	36DPT	52.72	45.10	42.80	40.60
774-0179	901-36C110	110	2355.	.047	5.25	36DPT	52.72	45.10	42.80	40.60

CONNECTORS AND TOOLS

Model 88601 Connector. Use in connecting wire to terminals or switches. Wires first crimped to snap-in terminal using Model 8601-51 crimping tool (see below); nylon terminal block pushes onto water terminals. Each connector handles 6 poles, single or double throw (18 terminals). Includes 1 connector block, 20 crimp contacts, 2 label, 1 retaining cup.

774-0190 Ea Model 8601-61 Extraction Tool. Removes snap-in terminal from connector blo Each 111.71

Model 8601-71 Connector Tong. Pushing on or withdrawing connectors. 774-0192 Each 14.98

Special-Purpose Relays for Industry

SERIES KB LATCHING RELAYS

4PDT relays, except *6PDT. Contacts, 5-amp silver or 10-amp silver cadmium-oxide movables. Mounting, two %2" holes on 19%" centers. AC 5-amp types are U.L. Component Program Recognized and C.S.A. Listed. Suffix 6, 10-amp; others 5-amps. Av. shpg. wt. 7 oz.



Stock	Type	Coil	Res.	EACH				
No.	KB-	Volts	Ohms	1-9	10-24	25-49	50-Up	
886-0485 886-0487 886-0488		6 AC 24 AC 120 AC	2.3 42 1030	16.13 16.13 16.13	13.60 13.60 13.60	12.92 12.92 12.92	12.24 12.24 12.24	
886-0490 886-0491 886-0492	17D	6 DC 12 DC 24 DC	13.1 51.0 230	14.53 14.53 14.53	12.25 12.25 12.25	11.64 11.64 11.64	11.03 11.03 11.03	
886-0482 886-0483 886-0494 886-0496	17AG 17DG	24 AC 120 AC 6 DC 24 DC	42 1030 13.1 230	16.30 16.30 14.83 14.83	13.75 13.75 12.50 12.50	13.06 13.06 11.88 11.88	12.38 12.38 11.25 11.25	

PC 7.5-AMP IMPULSE RELAYS

Armature and pusher assembly operate Armature and pusher assembly operate phenolic rocker switching from one contact pole to the other on alternate pulses. For on-off or reversing, Pulses may be as short as 60 milliseconds at 5 Hz. Gold-flashed silver cadmium-oxide contacts rated 7.5 amps at 120 volts AC, resistive load. AC coils are for 50-60 Hz. Mounting: two \(\frac{\psi}{22} \) holes on 2\(\frac{\psi}{28} \) c trs. Size, \(2\frac{\psi}{24} \) kx2\(\frac{\psi}{24} \) wx2\(\frac{\psi}{24} \).



ALL	ARE	DPDT	EXCEPT	*4PDT
-----	-----	------	--------	-------

Stock	Mfr's	Coil	Ohms	EACH				
No.	Туре	Volts		1-9	10-24	25-49	50-Up	
886-0935 886-0937 886-0938 886-0939	PC11A PC11A PC11A PC11D	6 AC 24 AC 120 AC 6 DC	8.8 240.0	13.68 13.68 13.68 13.13	10.94 10.94 10.94 10.50	7.32 7.32 7.32 7.03	6.93	
886-0940 886-0941 886-0943	PC11D PC11D PC17A°	12 DC 24 DC 120 AC	65.0	13.13 13.13 12.51	10.50 10.50 10.55	7.03 7.03 10.02	6.66	

KM 2-AMP SUBMINIATURE RELAYS



Stock	Mfr's	Coil	Ac-		EAC	•••	
No.	Туре	Voits	tion	1-9	10-24	25-49	50-Up
886-0610 886-0611 886-0614	KM11D KM11D KM14D	24 DC	DPDT DPDT 3PDT	9.23	7.38 7.38 8.52	4.94	4.68

KT 5-AMP ANTENNA-SWITCHING RELAY

DPDT relay for switching antenna between transmitter and receiver. Glass base insulation provides minimum loss in RF applications. For 300-ohm line. Mounts by 6-32 stud. Fine silver contacts rated 5 amps. 11/4 x15/6 x 111/6". Shpg. wt. 2 oz.



Stock	Mfr's	Coil	oil Res.,			EACH			
		Volts							
886-0746	KT11A	120 AC	2250	9.05	7.24	4.85	4.59		

GM 3-AMP IMPULSE/SEQUENCING RELAY

Single-coil latching relay. For uses requiring up to 6 operations per shaft revolution. Two Form C contacts (DPDT) switched indirectly and alternately by cams. Contacts rated 3 amps. Mtg.: 8-32 tapped core. †120 VAC, 425 ohms. Be sure to specify Stock No., Mfr's Type and coil voltage when ordering. Av. shpg. wt. 8 oz.



Stock	Mfr's	Ac-	EACH					
No.	Турв	tion	1-9	10-24	25-49	50-Up		
886-0226	GM11A	DPDTt	11.39	9.60	9.12	8.64		

KBP LATCHING PLUG-IN RELAYS

Fast acting, positive latching; for overload or memory work. Momentary impulse to one of the coils operates Impulse to one of the coils operates relay to set latch. Second pulse to other coil releases it. Enclosed in translucent polypropylene cover. Suffix G, 10 amps; others 5 amps. Type KBP17 is 4PDT; KBP20 is 5PDT. 20-pin octal type plug fits Type 77MIP20 socket. Shpg. wt. 8 oz.



Stock	Mfr's	Coil Volts	EACH					
No.	Туре		1-9	10-24	25-49	50-Up		
886-0505	KBP17A	120 AC	22.71	19.15	18.19	17.24		
886-0506	KBP17AG	120 AC	22.95	19.35	18.38	17.24		
886-0512	KBP17DG	12 DC	21.41	18.05	17.15	16.25		
886-0517	KBP20AG	120 AC	23.71	20.00	19.00	18.00		
886-0519	KBP20DG	12 DC	22.60	19.05	18.10	17.15		
886-0520	KBP20D	24 DC	22.60	19.05	18.10	17.15		

KUL MAGNETIC LATCHING RELAYS

Continuous duty single coil types. Uses a permanent magnet in parallel with normal magnetic circuit, requires only half the space of mechanical interlock types. Continuous latch condition even during loss of power. Contacts rated 10 amps at 28 VDC or 120 VAC, 80% power factor. Temp. range, -45° to 75°C. All are DPDT, except *SPDT. Av. wt. 3½ oz.



Stock	Type	Co	il	EACH				
No.	KÚL-	٧	Ohms	1-9	10-24	25-49	50-Up	
886-0758 886-0761	5A15S* 11A15S		3700 37	12.53 14.10	10.02 11.28			
886-0763 886-0766		120 AC 24 DC		14.10 12.08	11.28 9.66			

AP 5-AMP RATCHET IMPULSE RELAYS

On-off or reversing action on alternate impulses. Stop mechanism. Intermittent duty. DPDT except *4PDT. Contacts %." fine silver, rated 5 A at 120 V, 60 Hz. Tinned solder term. Mtg.: three %.2" dia. holes on 3%x%" triangular cuts. 2%ex2¼x3¾". Av. 9 oz.



Stock	Mfr's	Coil	Ohms		EA	CH	
No.	Турв	Volts	1.	1-9	10-24	25-49	50-Up
886-0027 886-0028 886-0029	AP11A	6 AC 12 AC 120 AC	0.6 2.28 240	13.69 13.69 13.69	11.55	10.97 10.97 10.97	10.40
886-0035 886-0036 886-0037	AP17D°	120 AC 12 DC 24 DC	240 15.5 65	16.60	14.00 14.00 14.00	13.30	12.60

GM IMPULSE/SEQUENCING RELAYS

With PC Boards. Uses design of GM With PC Boards. Uses design of GM Series, at left, with added uni-directional PC board with up to 12 steps. Board is attached to extension of ratchet shaft; movable contact arm advances one position each time armature drops out. *Coil voltage: 120 AC; 510 ohms. †24 VDC; 144 ohms. Contact rating, ¼ watt. 5 oz.



Stock	Mfr's	S	EACH				
No.	Турв	Action	1-9	10-24	25-49	50-Up	
886-0220 886-0222 886-0221 886-0223	GM1N10A GM1N12A GM1N10D GM1N12D	10-step* 12-step* 10-step† 12-step†	14.23	11.80 12.00 11.50 11.65	11.40 10.93	10.80 10.35	

ALLIED TYPE 3030 AC BUZZER

Low cost buzzer that is ideal for thermo, end-of-cycle use. 6-32 tapped mounting hole. Size, %x1 $^{1}\%$ 2 $^{2}\%$ 2 $^{2}\%$ 2 $^{2}\%$ 2. Av. shpg. wt. 2 oz.



				EACH					
Stock	Mfr's	V	Coil	1-	25-	50-	100-		
No.	Type	AC	Ohms	24	49	99	Up		
703-0500	3030-2	6	45	2.00	1.90	1.80	1.40		
703-0501		12	45	2.00	1.90	1.80	1.40		
703-0502		24	150	2.00	1.90	1.80	1.40		
703-0503		120	3000	2.00	1.90	1.80	1.40		

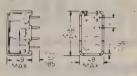
HC HALF SIZE CRYSTAL CAN RELAY

Non-polarized, non-latching. Has gold plated silver DPDT contacts rated dry circuit to 2 amps at 28 VDC resistive. Range --65° to +125°C. Plugin plain case. Meets or exceeds MiL-R-5757E, complies with MSFC-SPEC-339. Size, .8 x .4 x .4" (seated). ½ oz.



Stock	Mfr's	Coil			EAC		
No.	Type	Volts	Ohms	1-9	10-24	25-49	50-Up
886-0252	HC11D	24 DC	814	28.04	23.65	22.47	21.29

MICROMINIATURE HP RELAYS





Recommended for applications such as TV cameras, dictating machines, desk top computers, copying machines, etc. For PC circuit board or socket mounting. Encased in black, high impact dust covers. Non-polarized, non-latching half-size relay has terminals on .200" grid; for plug-in or soldering. Long-life DPDT gold-plated silver contacts rated low level to 2 amps at 30 VDC resistive; 0.5 amp maximum at 120 VAC. Insulation resistance, 100 megohms minimum at 500 VDC; breakdown voltage, 500 V rms. Size: .49 x .88 x .48". *Socket/retainer ring. Shpg. wt. 1 oz.

Stock	Mfr's	DC	Coil	EACH				
No.	Type	٧	Ohms	1-9	10-24	25-49	50-Up	
886-0256 886-0257		12 24	218 870	13.05 13.05	10.30 10.30	8.88	8.42 8.42	
886-1405	9 HP1 Soc	ket*		. 85	.76	.72	.70	

SERIES GP "PIC & BUILD" RELAYS





Separate AC and DC coils to match with DPDT or 4PDT switches. Combine to produce many different relays that convert to alternative sensitivities or switching. Silver contacts rated 4 amps. Mounting: 8-32 tapped core. 1.78 x 1.063 x 1.719. Order GPA or GPD coils and GP11 switch.

Stock	Mfr's	Volts or		EACH		
No.	Type	Description	1-9	10-24	25-49	50-Up
886-0238	GPA	12 AC	4.18	3.34	2.23	2.12
886-0239	GPA	24 AC	4.18	3.34	2.23	2.12
886-0240	GPA	120 AC	4.18	3.34	2.23	2.12
886-0244	GPD	12 DC	5.05	4.04	2.71	2.57
886-0245	GPD	24 DC	5.05	4.04	2.71	2.57
886-0235	GP11	DPDT Switch	4.25	3.40	2.28	2.16
886-0236	GP11	4PDT Switch	7.20	5.76	3.85	3.65

BU AC-OPERATED BUZZERS

Has AC operate coil with a spring steel armature which buzzes when coil is energized. Used exis energized. Used ex-tensively in applications where a small, light-weight, dependable buzzer is required. Rec-ognized under the Com-ponent Program of Un-derwriters' Laboratories, Inc. Mounting: #6-32 tapped core



Stock	Mfr's	's Voits	Ohms	EACH				
No.	Type			1-9	10-24	25-49	50-Up	
886-0040 886-0041 886-0042 886-0043	BU-12AC	6AC 12AC 24AC 120AC		4.18 4.18 4.18 4.18	3.34 3.34 3.34 3.34	2.23 2.23 2.23 2.23	2.12 2.12 2.12 2.12 2.12	

IR-PC

37/32

IR-PER

Special-Purpose Relays

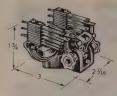
AC AND DC STEPPING RELAYS

Specially designed stepping relays for accurate sequence selecting, pulse multiplying/dividing, circuit selecting, automatic/remote homing, counting and latching. All are 120 VAC except for \$24 VDC type. All are direct drive units with switching completed on energization. Bridging contacts are rated at 1½ amperes, 115 volts 60 Hz noninductive load. All are rated at 10% duty cycle out of each hour; maximum single period, 5 minutes. Will operate at 15% below or, 10% above rated voltage. IR-PC and IR-MC are centinuous-rotation types, constructed with micro-finished shaft and oilite shaft bearings. IR-PER and MER are electrical-reset types, with steel box-type frame, IR-MAS is add-and-subtract stepper. IR-PAS is bidirectional stepper. Wt., 2 lbs.

*Active contacts, including zero position. †Zero-position switch only.

0. 1	Si Si		Size	13. 1	EAC			
Stock No.	Mfr's Type	No. Pts.	,m ??	(HxWxD) Inches	1-	18- 24	25- 49	50- Up
802-0060 802-0053 802-0063 802-0057 802-0457 802-0455 802-0050	IR-PC IR-MC IR-PER IR-PAS MER §MER IR-MAS	40 24 40 40 24 24 30	40 24 36 40 22 22	3½2x3½x3½ 2½15x3x3¼ 3¾15x3½x3 3¾15x3½x3¼ 2¾15x3½15x2¾1 2¾15x3½15x2¾1 11½16x3½3¼	28.39 21.03 37.39 39.28 24.20 24.20 28.31	26.16 19.37 34.44 36.18 22.29 22.29 26.08	23.54 17.43 31.00 32.56 20.06 20.06 23.47	22.24 16.46 29.27 30.75 18.95 18.95 22.16

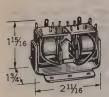
600 IMPULSE RATCHET RELAYS



For on/off control of lighting, motors, etc. Life expectancy over 1,000,000 steps. Each impulse reverses contacts. Up to 10 steps per second possible. Heavy-duty silver contacts rated 12½ amperes at 115 V, 60 Hz AC resistive. Size, 2½x 3x1¾". Coil voltage is indicated by the last digits of Type column in table below. Av. shpg. wt. 8 oz.

Stock	Type and	Action	EACH					
No.			1-	10- 24	25- 49	50- Up		
802-1410 802-1414 802-1418 802-1424 802-1420 802-1422	660-C-24AC 660-C-120AC 660-2C-120AC 665-2C-24DC 660-4C-24AC 660-4C-120AC	SPDT SPDT DPDT DPDT 4PDT 4PDT 4PDT	13.38 13.38 14.45 14.45 14.03 14.03	10.70 10.70 11.56 11.56 12.93 12.93	7.41 7.41 8.00 8.00 11.64 11.64	7.00 7.00 7.56 7.56 10.99 10.99		

INTERMITTENT-DUTY RELAYS



IR-PAS

Two C class 88 clapper-type relays with interlocking latch-in levers mounted on a common base. Each relay is complete with independent operating coll. 10 A silver alloy contacts. Nominal power AC units, 6 VA; DC, 3 W. 4DPT. 11%6x134x21%6". 6½ oz.

Stock Mfr's Type W88-	Mfr's	Coi					
	Volts	Ohm	1-	10- 24	25- 49	50- Up	
850-0391 850-0575	ALX-4	115 AC	50	14.65	12.19	11.55 10.52	10.91

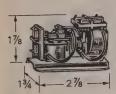
ROTOMITE DC STEPPING RELAYS



Small size makes these relays suitable for use in business machines, vending, counting, sorting, model trains, etc. Completely enclosed, 12 positions. Contact ratings at 115 V, 60 Hz: 3 amps resistive, 1 amp inductive; rotate continuously up to 20 steps per second. Expected life over 1 million operations. 5 oz.

Caroli	Tuna	V DC	EACH				
Stock No.	Type IR-705-		1-	10- 24	25- 49	50- Up	
802-0265 802-0267 802-0269	12P-6D 12P-12D 13P-24D	6 12 24	13.15 13.15 13.15	10.52 10.52 10.52	7.28 7.28 7.28	6.88 6.88 6.88	

4PDT, 10 AMP AC RELAY



Two interlocking 120 AC relays mounted on a sturdy metal frame bracket. These relays maintain circuits continuously without coil power consumption. Relays are electric-pulse-operated with mechanical hold and electrical release. Rated for 10 amps non-inductive load at 60 Hz, 120 volts only. Coil resistance: 1,100 ohms. Dimensions: 1% x 1¾ x 2%". Shipping weight: 5.5 ounces.

Stock	Mfr's		EAC	Н	
No.	Type IR-	1- 9	10- 24	25- 49	50- Up
802-0285	1200/1200-4C	14.46	13.32	11.98	11.32

840L MIDGET LATCHING RELAYS

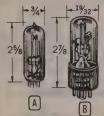


Single-coil construction. Designed for positive on-off control of positioning devices; remote controls, lighting circuits and similar industrial applications. Contacts are rated 5 amperes.

Snap-action switch mechanism operates on impulses as short as 20 milliseconds. Contacts hold in the last position of switch when coil is de-energized. For 115 V, 60 Hz AC. Size, 1% x 1% x 2%. Shpg. wt. 4 oz.

Stock No.	Type IR-840-	Action		EACH				
		ACTION	1- 9	10- 24	25- 49	50- Up		
802-0277 802-0278	L-C-120A L-2C-120A	SPST DPDT	10.00 12.95	8.00 9.64	5.54 6.68	5.23 6.31		

THERMAL RELAYS



- Heater Can Operate Continuously
- Convenient 9-pin or Octal Mounting
- Contacts 3 Amps at 115 VAC; 1 Amp at 220 VAC

Energized heater close contacts for NO Types of open for C Types after rated delay period. Relay heater operates on AC or DC. Heater draws two watts; may operate continuously. SPST contact is 3 amps at 115 VAC; 1 amp at 220 VAC. Voltage breakdown: 800 volts; heater-to-contact, 800 volts, except *250 volt contact and 500 volts heater-to-contact for units with delays of 10 seconds or less. Temperature range: —55°C to +70°C. Tolerance, ±30%. Octal base size, 1%-in. diameter, 2%-in. high, less prongs. Nine-pin miniature size for easy fit, anywhere. Made to the most rigid specifications and exacting tolerances in the industry. Measures ¾ inches diameter, by 2% inches high (measurements do not include prongs). When ordering, Please Specify Type Number As Weil As Stock Number. Average shgs. wt., 4 oz., octal base; 2 oz., 9-pin miniature.

A MINIATURE 9-PIN TUBE SHELL

De-									
	Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V			
2° 3° 5° 10° 15	711-1051 711-1055	6N02T 6N05T	711-1251 711-1253 711-1259	26N02T 26N03T 26N010T	711-1451 711-1453 711-1455 711-1459	115N03T 115N05T			
20 30 45 60 120	711-1065 711-1067	6N010T 6N045T	711-1269	26N060T	711-1463 711-1465 711-1467 711-1469 711-1475	115N020T 115N045T			
De-		Т	ype C. Nor	mally Cl	sed				
Sec.	Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V			
2° 3° 5°	711-1001 711-1005	6C2T 6C5T			711-1401 711-1403 711-1405 711-1409	115C3T 115C5T 115C10T			

lay			ype C. Nori	mally Cle	osea	
	Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V
2°	711-1001	6C2T			711-1401 711-1403	
5° 10° 15	711-1005	6C5T			711-1405 711-1409 711-1411	115C10T
20 30 45			711-1213	26C2OT	711-1413 711-1415	
60 120	711-1025	6C120T			711-1419 711-1425	
PRI	CE FACH		1.9	4.80	10-49	3 90

50-99....2.95

100-Up.....2.40

B OCTAL BASE TUBE SHELL

De- lav	Type NO. Normally Open						
	Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V	
2° 3° 5° 10° 15		6N010	711-1250 711-1252 711-1254 711-1258 711-1260	26N03 26N05 26N010	711-1450 711-1452 711-1454 711-1458 711-1460	115N03 115N05 115N010	
20 30 45 60 120 180	711-1064 711-1068 711-1074 711-1078	2N060 6N0120			711-1462 711-1464 711-1466 711-1468 711-1474 711-1478	115N030 115N045 115N060 115N012	

lay		Type C. Normally Closed							
	Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V			
2° 3*			711-1200		711-1400 711-1402				
3* 5* 10*	711-1008	6C10	711-1204	26C5	711-1404 711-1408 711-1410	115C10			
20 30 45 60	711-1014				711-1412 711-1414 711-1416 711-1418	115C30 115C45			
120 180	711-1028		1-9		711-1424 711-1428	115C120			
. 111	or LACII		50-99			2.40			

TYPE 41 SPDT SENSITIVE RELAYS

DC types are for on-off or gradually DC types are for on-off or gradually changing signals; shaded-pole AC for high-speed keying. High release for circuits with high idle current. SPDT silver contact 2 A, except *5 A, \$10 A at 28 VDC or 120 VAC. AC sensitivity: ACS, .2VA; ACG, .4VA; DC sensitivity, 40 mW. Open types, 2½x1½x1¾x1¾x". Wt. 3 oz. Enclosed, 1½x4x1½x4x2¾x". U.L. Recog. C.S.A. Listed. Wt. 3 oz.



UNENCLOSED AC RELAYS-SOLDER TERMINALS

Stock No.	Mir's A1 Type	Coil	EACH			
		or DC mA	1- 9	10- 49	50- 74	75- Up
917-0523	FZ-5000-ACG/BSL	115§	11.53	9.22	5.84	5.54

UNENCLOSED DC RELAYS-SOLDER TERMINALS

917-0510 F-200-S/SIL 917-0511 F-500-S/SIL 917-0514 F-5000-S/SIL 917-0515 F-10000-S/SIL	15.0 9.0 3.0 2.0	12.20 12.75	9.76 9.76 10.20 10.72	6.18	5.85 6.12
317-0313 1-10000-3/3IL	2.0	13.40	10.72	0.73	0.77

ENCLOSED AC RELAYS-OCTAL PLUG-IN

917-0535 ROZ-5000-ACG/BSL 917-0536 JOZ-12000-ACS/SIL		

ENCLOSED DC RELAYS-OCTAL PLUG-IN

917-0530 RO-1000-S/SIL 917-0537 RO6-1000-S/SIL 917-0538 RO6-2500-S/SIL	6.5 6.5 4.0		10.22 9.27 9.27	8.79	8.33
--	-------------------	--	-----------------------	------	------

TYPE 42 DPDT SENSITIVE RELAYS

Enclosed relays have octal plug-in bases and plastic dust covers. DC sensitivity: (S) 100 mW; (G) 200 mW. AC units: 0.30 VA for ACS type, 0.50 VA for ACG types. Withstand vibration, 10 g to 55 Hz; shock 100g (non-operation). Contacts rated 5 A at 28 VDC, 120 VAC, except †2 A. Size: 12½4 x 12¼4 x 2". Underwriters' Laboratories Recognized. C.S.A. Shpg. wt. 3 oz.



ENCLOSED AC RELAYS

		Coil	EACH			
Stock		WACor	1-	10-	50-	75-
No.		mADC	9	49	74	U p
917-0573	ROZ-200-ACG/SIL	24	12.34	9.87	9.36	8.87
	ROZ-4000-ACG/SIL	120	12.34	9.87	9.36	8.87
	RO6Z-4000-ACG/SIL	120	12.34	9.87	9.36	8.87

ENCLOSED DC RELAYS

917-0553 917-0554	RO-200-G/SIL RO-500-G/SIL RO-1000-G/SIL RO-2500-G/SIL	32 20 14 9	12.34 12.34 12.34 12.34	9.87 9.87 9.87 9.87	9.36 9.36 9.36 9.36	8.87 8.87 8.87 8.87
917-0558 917-0577 917-0578	RO-10000-G/SIL RO-12000-G/SIL RO6-500-G/SIL RO6-1000-G/SIL RO6-1000-S/SIL	4.5 4.0 20 14 10†	13.16 13.71 12.34 12.34 13.53	10.53 10.97 9.87 9.87 10.82	9.98 10.40 9.36 9.36 10.26	9.45 9.86 8.87 8.87 9.72
	RO-500-S/SIL RO-2500-S/SIL	14† 6.2†	13.53 13.53	10.83 10.83	10.26 10.21	9.72 9.72

TYPE 4 PLATE-CIRCUIT DC RELAYS

20 mW applications. 2-amp SPDT contacts. 4F unenclosed; for screw mtg.; solder term., coil lead conn. 1½x21½x 1½x 3 oz. 4R not illus., aluminum dust cover; 5-pin plug-in mtg. U.L. Recog., C.S.A. Listed. 1½x1½x2½x2½x ... Av. shpg. wt. 5 oz.



				E#	CH	
Stock	Mfr's Type and	mA	1-	10-	50-	75-
No.	Coil Ohms	DC	9	49	74	Up
917-0154 917-0158	4F-1000-S/SIL 4F-2500-S/SIL 4F-5000-S/SIL 4F-10,000-S/SIL	4.5 3.0 2.0 1.4	11.91 11.91 12.53 12.96	9.53 9.53 10.02 10.37	9.03 9.03 9.50 9.83	8.55 8.55 9.00 9.32
917-0174	4R-1000-S/SIL	4.5	16.28	13.03	12.35	11.70
	4R-5000-S/SIL	2.0	16.72	13.37	12.68	12.02
	4R-8000-S/SIL	1.6	17.22	13.77	13.06	12.38

TYPE 5 EXTRA-SENSITIVE RELAYS

SPDT extra-sensitive DC relays. Withstand shock to 100g. Silver contacts rated 1 A except "25 Å. U.L. Recog. C.S.A. Listed. 5F screw mtg.; solder term. $11\%_{\rm ex}$ 14 χ x1 $\%_{\rm ex}$ ". 3 oz. 5R, not lilus., alum. dust cover; 5-pin plug-in mtg. $11/_{\rm ex}$ x1 $\%_{\rm ex}$ x2 $\%_{\rm ex}$ ". Av. shpg. wt. 5 oz.



			EACH					
Stock	Coil Ohms	mA	1-	10-	50-	75-		
No.		DC	9	49	74	Up		
917-0208	5F-1000-S/SIL	2.3	16.67	13.33	12.64	11.97		
	5F-1000-SS/PAL	1.0°	18.85	15.08	14.30	13.55		
	5F-5000-S/SIL	1.0	17.79	14.23	13.49	12.78		
917-0232	5F-16,000-S/SIL	0.55	20.98	16.78	15.91	15.08		
	5R-10,000-S/SIL	.70	23.68	18.95	17.96	17.01		
	5R-16,000-S/SIL	0.55	25.48	20.39	19.33	18.32		

CLASS 77 MINIATURE 4PDT RELAY

Stock No.	Mfr's	C	oil :	EACH			
	Type	Volts	Ohms	1- 9	10- 24	25- 49	50- Up
850-0227 850-0228 850-0229	W77CSX-3 W77CSX-4 W77CSX-5	24DC 48DC 110DC	600 2500 10,000	9.45 9.72 10.45	7.56 7.78 8.36	4.83 5.00 5.37	4.59 4.72 5.07
850-2096	70-161-1 Sc	lder soc	ket w/ret.	1.02	.82	.49	.46

Silver-cadmium oxide gold-Silver-cadmium oxide golf-flashed contacts switch up to 5 amps — has greater contact pressure without increasing coil operating power. Molded insulated snap-on dust cover. Solder terminals. 11%4 x 11%2 x 5%4". Av. shpg. wt. 2 oz.



LB-5 SENSITIVE 5-AMPERE RELAYS

For any circuit supplying as little as 200 milliwatts of DC. Breakdown, 500 V rms. Contacts: 5 amps, 28 V, SPDT action. Adjustable. For DC only. Mounting, two \(\frac{1}{36} \) holes on 2\(\frac{1}{32} \) centers. Shpg. wt. 3 oz.



Stock	Ohms	mA	EACH					
No.	0		1-9	10-24	25-49	50-Up		
886-0815 886-0816 886-0817	2500 5000 10,000	9 6.3 4.5	6.23 6.58 7.10	4.98 5.26 5.68	3.33 3.52 3.80	3.15 3.33 3.35		

SERIES LM SENSITIVE 5-AMP RELAYS

Otrack.	004-1-	Ohms				EAC	H	
Stock No.	Mfr's Type		mA /	Action	1-	10- 24	25- 49	50- Up
886-0820 886-0821 886-0822 886-0823 886-0824 886-0825	LM5 LM5 LM5 LM11 LM11 LM11	2500 5000 10k 2500 5000 10k	6.3 4.5 3.2 9.0 6.3 4.5	SPOT SPOT SPOT DPOT DPOT DPOT		7.60 7.96 8.52 10.94 11.22 11.58	5.08 5.32 5.70 7.32 7.51 8.22	4.82 5.04 5.40 6.93 7.11 7.79

spring-tension Armature spring-tension adjustment and adjustable residual screw permits setting for specific voltages and currents. (LMS; 0.1 to .015 watts. LM11; 0.2 to 0.07 watts.) Silver contacts rated at 5 amperes. LMS is SPDT; LM11 is DPDT. Mounting, two 6-32 holes on 11/4." centers. Sizes: LM5, 2½, x 11/4 x 2½, LM1, 2½, x 2½, X 2½, Wt. 6 oz.



113/32

92

RS5D SENSITIVE 2-AMP RELAYS

Sensitivity, 60 mW. Operate, 25 ms; release, less than 5 ms. SPDT contacts rated 2 amps. *6 VDC type. †12 VDC. Size, .938 x 1 x 1.172". Shpg. wt. 2 oz.

Stock	Ohms	mA	EACH					
No.			1-9	10-24	25-49	50-Up		
886-1275 886-1276 886-1278 886-1279	335 1350 5000 10k	3.5 2.5	6.23 6.48 7.28 8.43	4.98 5.18 5.82 6.74	3.33 3.47 3.90 4.51	3.15 3.29 3.69 4.28		

KCP ENCLOSED SENSITIVE 2-AMP RELAYS

					EAC	H	
Stock No.	Mir's Type	Ohms	Action	1-	10- 24	25- 49	50- Up
886-0525	KCP5	2500	SPDT	13.68	10.94	7.32	6.93
886-0526		5000	SPDT	13.85	11.08	7.41	7.02
886-0527		10,000	SPDT	14.65	11.72	7.84	7.43
886-0528	KCP11	2500	DPOT	14.48	11.58	7.74	7.34
886-0529	KCP11	5000	DPDT	14.65	11.72	7.84	7.43
886-0530	KCP11	10,000	DPDT	14.73	11.78	7.85	7.45
886-0531	KCP14	2500	3PDT	11.92	10.05	9.55	9.05
886-0532	KCP14	5000	3PDT	12.09	10.20	9.69	9.18
886-0533	KCP14	10,000	3PDT	12.69	10.70	10.17	9.63

In transparent, hlgh-impact weatherproof case. KCP5 and KCP11 plug into standard octal socket; KCP14 plugs into standard 11-pin socket. Gold-flashed silver contacts rated 2 amps. Size, 111/32 x 111/32 x 2" high. See index for sockets. Shpg. wt. 4 oz.

						- Bu	
Resist.	Singl	e Pole	Doubl	e Pole	Three Po/e		
(Ohms)	Pull-in	Sens.	Pull-in	Sens.	Pull-in	Sens.	
2500 5000	7.2 mA 5.0 mA	125 mW 125 mW 125 mW	7.2 mA	250 mW 250 mW 250 mW	12.3 mA 8.7 mA 6.1 mA	375 mW	

ULTRA-SENSITIVE MDP POLARIZED HI-SPEED RELAYS

Center-stable one form K contact arrangement. Sliver contacts rated 3 amps resistive @ 28 VDC. 1% x 1% x 11% r. Dust cover. 8-pin plug. ‡Resistance per coil. §Barber-Coleman equiv., AYLZ. Wt. 9 oz.



Stock	Type		Coi	Is	5		EACH	
No.	MDP-	No.	mА	Res.‡	AYLZ-	1-9	10-24	25-Up
885-0842 885-0845	1007 2009	1 2	0.27 0.32	480 1000	7306-100 7358-100	39.76 39.76	31.75 31.75	30.16 30.16

ML 3-AMP MIN. HI-SENSITIVITY DC RELAYS

Excellent sensitivity with outstanding switching capabilities. Type ML11D is DPDT; ML17D is 4PDT. Ideal for translatorized computer networks, telephone systems. Single contact arms have ½" diameter gold-flashed contacts rated 3 amps (120 V, 60 Hz, resistive) for 10,000,000 operations. Solder lugs. Four 3-48 holes on ½" centers. 11%2 x ¾ x 11½2". 3 oz.



GB SENSITIVE 5-AMP RELAYS

Sensitivity: 115 mW for single pole, and 275 mW for 4 pole. DPDT silver contacts are designed for maximum self-cleaning action for minimized maintenance. (Pick-up is not adjustable.) Contacts rated 5 amperes. Mounting: 8-32 tapped core and locating half-punch. 215/2x123/2x111/4". 6 oz.



Stock	Mfr's	(oil	EACH				
No.	Type	mA	Ohms	1-9	10-24	25-49	50-Up	
886-0209 886-0208	GB11D GB11D	7.0 5.0	2500 5000	12.15		6.51	6.17 5.90	

PW HERMETICALLY SEALED 1-AMP RELAYS

Precision, lightweight DC relays. DS suffix are voltage-actuated. LS current-actuated. Mounts in 7-pin miniature tube socker. Silver contacts rated at 1 amp. 4%4" dia.;

Stock	Mfr's				EA	CH	
No.	Type	ADC	Ohms	1-9	10-24	25-49	50-Up
886-1021 886-1025 886-1024	PW5LS	2.8°	810 5000 10,000	17.55 18.20 18.85	14.80 15.35 15.90	14.06 14.58 15.11	13.32 13.82 14.31

EACH

Type Coil Coil EACH
ML- Ohms mA 1-9 10-24 25-49 50-Up 11D 2500 4.0 14.65 11.72 8.31 11D 5000 2.83 14.00 11.20 8.50

2-5 MAX

OIB

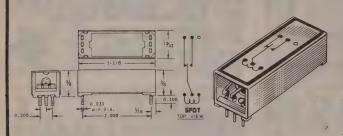
STANDARD SIZE PRINTED CIRCUIT REED RELAYS

Integrally molded bobbin and terminal board. Hermetically sealed glass reed capsule. 1-pc. support terminals fastened to terminal board. All are high-quality, U.S. made to Allied's rigid specifications. Contact Combinations: SPST-N.O. (1 Form A). Contact Load Rating: 15 Volt-Amperes at 1 amp max. or 250 VDC

max., resistive. Operate Time: 3 ms. av. Re-lease: ½ ms av. Contact Bounce: less than 1 ms av. Contact Resistance: 250 milliohms av. PC Terminal Pln Centers: 200" ¾ dia. Typical Life at Rated Load: 20 million operations; 100 million at ½ load. Quan-tities of 100 packed 10 sleeves per box.

Stock Allie No. Type	0.1121	Coil	Data	Contact Load	EACH				
	Type No.	_	Ohms*	Dati	1- 49	50- 99	100- 499	500- Up	
703-2051	AMP2050 AMP2051 AMP2052	12	70 250 1000	15 VA Max. @ 1 A Max. or 250 VDC Max. Resistive	3.70 3.70 3.70	2.96 2.96 2.96	2.03 2.03 2.03	1.89 1.89 1.89	

†Voltage operated relays pull in at 80% or less of nomina



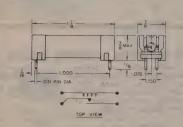
MINIATURE SIZE MODULAR PRINTED CIRCUIT REED RELAYS

Economical miniature relays boast integrally molded bobbin and terminal board: Welded capsule leads and support terminals. Contact Combinations: SPDT-N.O. (1 Form C). Contact Load Rating: 3 Volt-Amperes max. at 0.25 amp max. or 28 VDC max., resistive.

Nominal Coil Power: 500 mW. Operate and Release Time: 1 ms average. Contact Bounce: less than 0.5 ms av., N.O. contacts; less thant 2 ms av., N.C. Contact Resistance: 500 millionms average. Typical Life at Rated Load: 10 M. operation—longer at reduced loads.

Stock	Allied	Coil	Data	Contact Load		E	ACH	
No.	Type No.		Ohms*	Rating	1- 49	50- 99	100- 499	500- Up
703-2013	AMP2011 AMP2012 AMP2013 AMP2014	24	300 1100 300	3 VA Max. @ 0.25 A Max. or 28 VDC Max. Resistive		4.82 4.82 4.82 5.12	3.84 3.84 3.84 4.21	3.56 3.56 3.56 3.91

†Voltage operated relays pull in at 80% or less of nominal voltage @





MINIATURE SIZE PRINTED CIRCUIT REED RELAYS

Integrally molded bobbin and terminal board onstruction with welded capsule leads and support terminals. Contact Combinations: SPST-N.O. (I Form A). Contact Load Rating: 10 Volt-Amperes max. at 0.5 amp max. or 100 VDC max., resistive. PC Terminal Pin Centers: .150". PC Pin Diameter: .031". Operate Time: 1 ms average. Release Time: 0.5 ms av. Contact Bounce: less than 0.5 ms. Contact Resistance: 200 milliohms. Capacitance Across Contacts 0.8 pF. Typ. Life @ Rated Load: 5 M. oper.—20 M. @ ½ load.

Stock	Allied	Coil	Data	Contact Load		EA	CH.	
No.	Type No.			Rating	1-49	50- 99	100- 499	500- Up
703-200 703-200	6 AMP2006 7 AMP2007 8 AMP2008 9 AMP2009	12 24	70 300 1100 45 0	10 VA Max. @ .5 A Max. or 100 VDC Max. Resistive	3.37 3.37 3.37 3.90	2.77 2.77 2.77 3.16	2.16 2.16 2.16 2.46	2.00 2.00 2.00 2.28

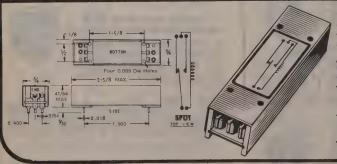
OPEN STYLE MOLDED MINIATURE DRY REED RELAYS

Contact Combinations: SPST-N.O. (1 Form A).
Contact Load Rating: 10 Volt-Amperes max.
at 0.5 amp max. or 100 VDC max., resistive.
Nominal Coil Power: 600 mW; Operate Time:
1 ms av. Release Time: 0.5 ms av. Contact
Bounce: less than 1 ms av. Contact Resist-

ance: 200 milliohms av. Dielectric Strength Between Contacts: 250 Volts DC. Dielectric Strength Between Contacts: 250 Volts DC. Dielectric Strength Between Contacts and Coil: 750 Volts AC, RMS. Typ. Life @ Rated Load: 5 M. oper.—longer at reduced loads.

01	0.1011	Coil	Data	Control Lond		EA	СН	
Stock No.	Allied Type No.	_	Ohms*	Contact Load Rating	1- 49	50- 99	100- 499	500- Up
703-2002 703-2003	AMA2001 AMA2002 AMA2003 AMA2004	24	100 250 500 500	10 VA @ 0.5 A or 100 VDC Max. Resistive	2.40 2.40 2.40 2.90	1.92 1.92 1.92 2.32	1.36 1.36 1.36 1.58	1.26 1.26 1.26 1.50

†Voltage operated relays pull in at 80% or less of nominal voltage @ 25°C; *Values ±10% @ 25°C.



STANDARD SIZE MODULAR PRINTED CIRCUIT REED RELAYS

Have 1-pc. support terminals fastened to terminal board and soldered stress-free to switch leads. Contact Combinations: SPDT (1 Form C). Contact Load Rating: 10 Volt-Amperes max. at 0.5 amp max. or 200 vDC max. resis. Nominal Coil Power; 500mW. Operate Time: 2 ms. av. Release Time: 0.5 ms av.

Contact Bounce: 4 ms av. on release, normally closed contacts. Contact Resistance: 100 milliohms av. Dielectric Strength Between Contacts: 350 VDC. Dielectric Strength Between Contacts and Coll: 750 VAC, RMS. Typical Life at Rated Load: 10 M. oper.—

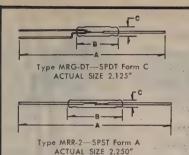
		Coil	Data	O track I and		EAC	CH	
Stock No.	Allied Type No.	VDC†	Ohms*	Contact Load Rating	1- 49	50- 99	100- 499	500- Up
703-2058	AMP2057 AMP2058 AMP2059		60 250 1000	10 VA Max. @ 0.5 A or 200 VDC Max. Resistive	5.55 5.55 5.55	4.44 4.44 4.44	3.26 3.26 3.26	3.03 3.03 3.03 @ 25°C

CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

Allied Type	Potter & Brumfield	Struthers Dunn	Magnecraft	C. P. Clare
AMA2001-2004	JR 1000	RRN	W101MX	MRMC1041
AMP2006-2009	JR1005	MRRX TO THE	W101MPCX W	MRMC1041
AMP2011-2014	JM1086	MRRN	W104MPCX	MRM1042
AMP2050-2052	JM1011	MRRK	W102MPCX	MRMC1043
AMP2057-2059	JR 1030	MRR '	W103MPCX	MRMC1043

Precision Magnetic Reed Switches





MAGNETS FOR SWITCHES AT RIGHT, BELOW

			EA	CH
Stock	Mfr's	Size	1-	10-
No.	Type	Inches	9	Up
807-0001	H-31-604	1/16X1/16X1/2	.50	.30
807-0002	H-32-605	3/16X3/16X1	.63	.35
807-0003	H-33-606	1/8X1/6X3/4	.50	.30
807-0004	H-34-607	1/4X1/4X1	.75	.40

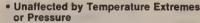
DRY AND MERCURY-WETTED TYPE REED SWITCHES

- Ultra Compact and Highly Sensitive— Rapid Cycling Rate
- Hermetically Sealed

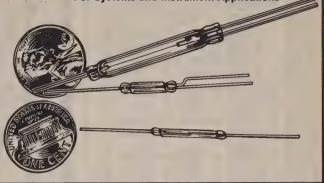
Precision crafted for reliable operation under the most critical conditions. Offer excellent flexibility in a broad range of applications. Hermetically sealed for safe, dependable use in any atmosphere—even under explosive conditions.

Unaffected by high or low temperature extremes or pressure. Compact size with high sensitivity and rapid cycling rate. Excellent for use in position indicators, counting instruments, limiting switches, flow meters, communications instruments and reed relays. Actuating time: 1 millisecond or less.

Dry reed switches have life expectancy of 10 million operations mercury-wetted switches 1 billion operations. Contacts: Form A (SPST-N.O.) or C (SPDT). May be actuated by permanent or electro magnets. Permanent magnets sold at left. Av. shpg. wt., 1 oz. each.



• For Systems and Instrument Applications



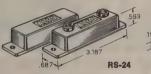
BASE MOUNT REED KEYSWITCH

Reed actuated low profile, single pole normally open switch suitable for 0.75" matrix. Molded in high quality glass-filled nylon and acetate resin. Switch is actuated by permanent magnet.



Stock	Mfr's	Description		EA	CH	
No.	Type	47.5	1-9	10-24	25-49	50-Up
700-7085	RSM-61	Flat base	3.43	2.74	1.95	1.70

PROXIMITY MAGNETIC REED SWITCHES





RS-24—Alnico V magnet actuates reed switch within distance of 1". 0.5 amp break, 1.0 amp carry. Life: 5 million operations. Miniature RS-11 — Alnico V magnet actuates reed switch within distance of .39". Rated .15 A break, .5 A carry at 50 VDC. 200 VDC breakdown. Life: 10 million cycles, *Apart.

Stock	Mfr's	Descrip-		EA	CH	
No.	Туре	tion	1-	10- 24	25- 49	50- Up
652-0005 652-0011	RS-24-NO RS-24-NC RS-11-NO RS-11-NC	N.O. Pair* N.C. Pair* N.O. Pair* N.C. Pair*	3.10 3.48 3.03 3.35	2.48 2.78 2.42 2.68	2.07 2.32 2.02 2.24	1.65 1.97 1.72 1.90

POWEREED SWITCH

Reliable, precision engineered powereed switches. 15 amps maximum Inrush, break 3 amps at 125 VAC. 10 amps maximum inrush, break 2 amps at 250 VAC. N.O.

Stock	Mfr's		EA	CH	
No.	Type	1-9	10-99	100-499	500-Up
757-0515	D30RS300	4.87	3.25	2.77	2.50

WRITE, WIRE OR PHONE
ALLIED ELECTRONICS
FOR LARGER QUANTITY
PRICES

MINIATURE MAGNETIC REED SWITCHES

MRR-2-185: Rhodium contacts, mini. form A; MRH-15-185: 1015 ohms insul. res.; MLC-2-186: Economy Form A.

Stock	Mfr's	Size		Max. DC Contact	Max.	Max.	Min. VDC	Stock Ampere	Actuat-		EA	CH	
No.				Ratings,	Amps	DC	Break-		ing Magnet	1-9	10- 24	25- 99	100- Up
807-0030 807-0024 807-0064	MRR-2-185 MRH-15-185 MLC-2-186	6 6 10	. A A	10 10 10	.500 .500 .500	200 50 100	300 300 300	30±7.5 30±7.5 30±10	H-33 H-33 H-33	2.07 4.13 1.82	1.66 3.30 1.46	.94 1.87 .83	.69 1.50 .61

SUB-MINIATURE MAGNETIC REED SWITCHES

MSRR-2-185: Rhodium contacts, submini. form A; MSRR-2CD-155: Close differential.

807-000 M3hh-2cb-133 3 A 3 .300 200 300 23±1.3 11-33 2.32 1.31 1.03	807-0037 MSRR-2-185 807-0066 MSRR-2CD-155	5	A	10	.500 .500	200 200	300 300	30±7.5 25±7.5	H-33 H-33	2.07 2.90	1.68 2.32	.94 1.31	.69 1.05
---	--	---	---	----	--------------	------------	------------	------------------	--------------	--------------	--------------	-------------	-------------

TINY MAGNETIC REED SWITCHES

MTRR-2-18	5: Off Ctr. gap	, rho	dium	contacts	; MR	g-DT-	175: N	Mini form	C; MLC	-DT-186	: Econ	omy F	orm C.
807-0039 807-0025 807-0065	MTRR-2-185 MRG-DT-175 MLC-DT-186	3 4 4	A C C	10 3 3	.250 .250 .250	28	250	30±7.5 27.5±7.5 30±10		2.50 7.03 5.38	5.62	1.12 3.19 2.44	.83 2.55 1.95

MICRO AND MINI MAGNETIC REED SWITCHES

MMRR-2-185: Smallest off-ctr. gap switch; MINI-2-115: Smallest ctr. gap switch.

MRR-2-185 NI-2-115	1 2	A	3	.010 .110	28 28	250 200	30±7.5 30±7.5	H-31 H-31	3.30 2.90	2.64 2.32	1.50 1.31	1.20 1.05

STANDARD MAGNETIC REED SWITCHES

DRG-2-425: Gold contacts, std. form A; DRR-1-425: Rhodium contacts, std. form A; DRR-5-425: Hi breakdown voltages; DRT-5-425: Inductive loads...

807-0013	DRG-2-425	8	Α	15	1.0	250		70±7.5	H-34	2.48	1.98	1.12	.83
807-0014	DRR-1-425	8	Α	15	1.0	400	500	70±7.5	H-34	2.48	1.98	1.12	.83
807-0015	DRR-5-425	8	Α	25	1.0	1000	1500	70±7.5	H-34	2.65	2.12	1.28	1.04
807-0018	DRT-5-425	8	Α	50	3.0	1000	1500	70±7.5	H-34	4.95	3.96	2.40	1.95

COMPACT MAGNETIC REED SWITCHES

DRR-DTH-445: Hi breakdown voltage; DRT-DTH-445: Inductive loads; DLC-DT-327: Economy Form C.

Stock	Mfr's	Size		Max. DC Contact	Max.	Max.	Min. VDC	Stock Ampere	Actuat-		EA	CH	
No.	Туре			Ratings, W		DC	Break- down	Turn	ing Magnet	1- 9	10- 24	25- 99	100- Up
807-0006 807-0007 807-0063	DRR-DTH-445 DRT-DTH-445 DLC-DT-327	7 7 7	CCC	10 20 10	.5 1.5 .5	250 500 200	1000 1000 350	72.57.5 72.57.5 5515	H-32 H-32 H-32	3.73 8.25 2.07	2.98 6.60 1.66	1.80 4.00 1.06	1.46 3.25 .81

HIGH-VOLTAGE MAGNETIC REED SWITCHES

High breakdown voltage for DRVT-5-658 is 5 KVDC; DRVT-10-658, 10 KVDC; DRVT-15-979, 15 KVDC; DRVT-20-979, 20 KVDC.

807-0008	DRVT-5-658	8	A	50	3.0	3500		120±20	H-34		4.62		2.63
807-0009	DRVT-10-658	8	A	50	3.0			120±20	H-34				3.37
807-0010	DRVT-15-979	8	Α :	50	3.0	12500	15000	200 max.	H-34	14.00	11.20	6.80	6.37
807-0011	DRVT-20-979	8	Α	50	3.0	17500	20000	200 max.	H-34	16.00	12.80	9.60	9.00

HIGH CURRENT MAGNETIC REED SWITCHES

 807-0070
 SRT-2-455
 9
 A
 100
 1.0
 28
 300
 75±7.5
 H-32
 4.13
 3.30
 2.00
 1.6

 807-0071
 DRHC-5-979
 9
 A
 330
 3.0
 28
 700
 200 max.
 H-32
 5.78
 4.62
 2.80
 2.2

MERCURY-WETTED MAGNETIC REED SWITCHES

MRC-3-387: Mercury wetted, miniature form A; HRC-1-535: Mercury wetted, standard form A.

807-0021 807-0019	MRC-3-387 HRC-1-535	6 8	A	28 50	1.0 3.0	100 400	1000 1000	65±15 80±7.5	H-33 H-34	7.03 7.03	5.62 5.62	3.19 3.19	2.55 2.55
			DIM	ENSIO	N CH	ART	FOR	SWITC	HES				

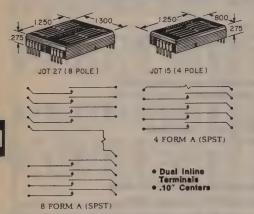
		DIME	NSION	CHART	FOR	SWITC	HES			
Size Code	1	2	3	4	5	6	7	8	9	10
(A) Overall L. Nom.	2.000	2.000	2.125	2.125	2.250	2.250	3.375	3.125	3.465	2.250
(B) Glass L. Max.	.375	.500	.560	.610	.800	.800	1.562	2.100	1.640	.800
(C) Glass Dia. Max.	.090	.070	.092	.130	.090	.130	.218	.218	.212	.105

Reed Relays and Reed Switches

DUAL INLINE REED RELAYS

Const	304-1-	Contacts		C	il			EA	СН	
Stock No.	Mfr's Type	and Ratings	Max.VDC Pickup	Volts	Ohms	Typ. mW Required	1-9	10-24	25-49	50-Up
050-1550	W107DIP-1		4	5	500	50	7.00	5.60	3.60	3.40
850-1551	W107DIP-2		4.8	6	500	75	6.12	4.90	3.15	2.98
850-1552	W107DIP-3	SPST NO	9.6	12	500	300	6.12	4.90	3.15	2.98
850-1554	W107DIP-5	1 Form A	4	5	500	50	8.22	6.58	4.23	4.00
850-1555	W107DIP-6	3 VA	4.8	6	500	75	7.35	5.88	3.78	3.57
850-1556	W107DIP-7		9.6	12	500	300	7.35	5.88	3.78	3.57
850-1300	W117DIP-1		4	5	200	130	6.22	4.98	3.20	3.02
850-1302	W117DIP-2		4.8	6	200	170	5.65	4.52	2.91	2.75
850-1304	W117DIP-3	SPST NO	9.6	12	500	300	5.65	4.52	2.91	2.75
850-1306	W117DIP-4	1 Form A	19.2	24	1200	500	6.00	4.80	3.09	2.92
850-1308	W1170IP-5	10 VA	4	5	200	130	7.52	6.00	3.87	3.66
850-1312	W117DIP-7		9.6	12	500	300	6.85	5.48	3.53	3.33
850-1316	W117DIP-9	DOOT NO	4	5	200	130	10.07	8.86	5.1	4.89
850-1318	W117DIP-10	DPST NO	4.8	6	200	170	9.25	7.40	4.75	4.49
850-1320	W1170IP-11	2 Form A 3 VA	9.6	12	500	300	9.25	7.40	4.75	4.49
850-1322	W1170IP-12	2 AV	19.2	24	1200	500	9.80	7.84	5.04	4.76
850-1326	W118DIP-1	, ,,,,,	4	5	200	130	13.65	10.92	7.02	6.63
850-1328	W118DIP-2		4.8	6	200	170	12.77	10.20	6.57	6.21
850-1330	W118DIP-3		9.6	12	500	300	12.77	10.20	6.57	6.21
850-1332	W118DIP-4	SPDT	19.2	24	1200	500	13.12	10.50	6.75	6.38
850-1334	W118DIP-5	1 Form C	4	5	200	130	14.87	11.90	7.65	7.23
850-1336	W118DIP-6	6 VA	4.8	6	200	170	14.00	11.20	7.20	6.80
850-1338	W1180IP-7		9.6	12	500	300	14.00	11.20	7.20	6.80
850-1340	W118DIP-8	0 t Fig. 1	19.2 -	24	1200	500	14.45	11.56	7.43	7.01

JDT DUAL THIN-LINE REED RELAYS



Dual inline terminals on .10" centers. Epoxy encapsulated. SPST contacts rated 10 watts min. res. (50 VDC and 0.5 max. switching). Oper. time: 4 msec max. at 25°C with contact bounce of 0.3 msec. Release time, 2 msec max. Wt.: 4100, ½ oz.; 8100, ¾ oz.

	Mfr's		Coil	Con	tact		EA	CH		
Stock No.	Type JDT-	V DC	Ohms	Form W		1-	10- 24	25- 49	50- Up	
886-0263 886-0264 886-0266	15DB1	24	460 1840 240	4A 4A 8A	0.31	11.83 12.83 16.00	10.26	7.15	6.03	

MAGNETIC REED SWITCHES

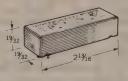


Form A and true Form C switches for low-power electronic circuits. Feature high sensitivity, fast operation (1 ms max.) and resistance to shock (15g's up to 2000 Hz), Control and instrumentation, counting, position indicating, logic and limit switching. *Center gap, †Offset gap, §Resistive.

FC	RM A SPS	ST-PULI	-IN	RAI	NGI	E: 20-	90 4	AT	
Stock	Mfr's	Siza		bac				CH	
No.	Туре	D.xL.	A max	W DC			20- 99	100- 499	500 Up
917-0114 917-0116	3A14-032* 3A14-017*	.100x.800 .100x.800	0.5 1.0					8 1.0 8 1.0	
917-0119	3A31-013+	.090x.560	1.0	8	12	2.15	1.7	2 1.1	5 .94

FORM C SPDT-PULL-IN RANGE: 40-90 AT 917-0125 3C05-059+ .125x.625 0.75 10 15 5.90 4.72 3.15 2.58

JR SERIES REED RELAYS



Insulated. Hermetically sealed. PC pin terminals. Form A: SPST, N.O. Form B: SPST, N.C. Form C: SPDP, N.C., break-beforemake. Operating Time: 3 ms. Temp: -50 to +85°C. Breakdown: 500 V rms, 60 Hz. Wt: 2½ oz.

		(oil	oil Contac							
Stock No.	Type JR-	V DC	Ohms	Form	W	1-9	10- 24	25- 49	50- Up		
886-0342 886-0345	1005	12 12	600 150	1A 4A	15 15	4.85 9.13	3.88 7.30		2.29 4.29		
886-0358 886-0347 886-0348	1045 1010 1011	12 24 24	600 2400 1600	1C 1A 2A	10 15 15	12.15 5.75 6.95	9.72 4.60 5.56	3.19	5.72 2.70 3.27		
886-0364 886-0380	1088 1050	24 24	800 2400	1A,1B 1C			6.86 10.16		4.03 5.97		

DIL SERIES 191 SPST, DPST, SPDT



Standard 14-pin, dual-in-line package reed relays. Operating time: 1.0 ms (Max) at rated voltage. Isolation resistance: 10° chm (Min). Ratings: Form 1A and 2A, 0.5 watt. Form 1C, 0. 25 watt. May be supplied with Internal diode suppression electromagnetic and electrostatic shielding. Average shipping weight: 1 cunce.

Stock	Туре	C	oil Rat	ing		E	ACH	
No.	191TE-	VDC	Ohms	Form	1- 9	10- 24	25- 74	75- Up
917-1202 917-1201 917-1205 917-1213	1A1-5S 1A1-5G 1A1-12G 2A1-5G	5 12 5	500 200 1250 200	1A 1A 1A 2A	5.90	4.72 4.72	2.99 2.99 2.99 5.51	2.84
917-1215 917-1208 917-1207 917-1211	2A1 -12G 1C1-5S 1C1-5G 1C1-12G	12 5 5 12	500 200 150 500	2A 1C 1C 1C	8.90	7.12	5.51 4.51 4.51 4.51	4.28

TYPE 193 PC TYPE MINIATURE REED RELAY



For use in miniaturized space-age circuitry wherever space is at a premium. Standard printed-circuit-type pin contacts on 1.000 x 0.100 PC grid spacing. Contact rating of 0.5 amps. Operate, bounce, release times: 2 ms. Magnetically shielded. Plastic housing. The two digits following 193RE in Type No. indicate contact arrangement; next two digits (-24) indicate nominal VDC. Av. shpg. wt. 2 oz.

Stock	Mfr's	Coil			EA	CH	
No.	Type	Ohms	Action	1-	10-	50-	75-
				9	49	74	Up
917-1227	193RE1C3-24G	1500	SPDT	9.20	7.36	4.66	4.41

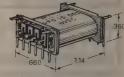
- 8-Pin Reed Relays
- Compatible With Standard IC Packaging
- Offers Quality at Low Cost
- For High-Density Packaged Circuits
- Offers The Optimum In Automatic Insertion



DIP (dual inline package) line of 8 pin reed relays. These relays are designed not only to be compatible with the standard packaging developed for integrated circuits, but to offer quality at low cost. This unique design gives further savings by offering the user the optimum in automated insertion and other economical installation techniques associated with printed applications. Ideal for use in circuits where high density packaging is essential.

OPEN STYLE DRY REED RELAYS

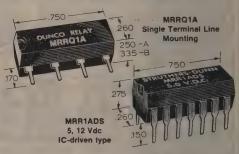
Rhodium contacts are rated 10 watts max. 5 amp max. and 200 volts DC resistive. Typical operate speed Pick Up: 1 millisecond. Expected electrical life is 10 million operations at rated load. Contact protection is recommended to assure long operating life and reliability. Approx. wt. .3 to .8 oz.



JRC SERIES. For .100 x 1.00" grid layouts.

0. 1	200.0		(oil		EAC	H	
Stock No.	Mfr's Type	Form	٧	Ohms	1-9	10- 24	25- 49	50- Up
886-1200 886-1201 886-1203 886-1204	JRC1DA1 JRC1DA1 JRC7DB1 JRC7DB1	1A 1A 2A 2A	6 12 6 12	240 960 155 625	7.00 7.00 8.85 8.85	5.60 7.08	3.80 3.80 4.80 4.80	3.60 4.55
886-1205 886-1209	JRC7DB1 JRC2DB1	2A 1B	24	2500 155	10.15 7.70		5.51 4.18	
886-1212 886-1213 886-1214 886-1217	JRC2DB1 JRC2DB1 JRC50DD1 JRC50DC1	1B 1B 1A+1B 1A+1B	12 24 6 24	625 2500 100 1645	7.70 8.23 10.15 10.43	6.58 8.12	4.18 4.47 5.51 5.65	4.23 5.22
886-1219 886-1220	JRC60DE1 JRC60DE1	2A+2B 2A+2B	12 24		12.70 12.95			

DUAL IN LINE MINIATURE REED RELAYS



DIP dry reed relays are specifically designed for the same mounting as standard 14-pin dual-in-line integrated circuit sockets. Model MRR1AD fits standard 14-pin sockets whereas Model MRR1AD fits standard 14-pin sockets. Two MRRQ relays can be mounted into single 14-pin sockets. Standard contact configurations are one Form A (1A=SPST-NC), one Form B (18=SPST-NC), two Form A (2A=DPST-NC) and one Form C (1C=SPDT). Operate time: 1 ms. max. (2 ms. for 1C). Ambient temp: -10 to +70°C (1ADSR=-10 to +25°C). Life: 5 million max. rating, 10 million ½ max. rating, 20 million dry circuit.

Stock	Mfr's	Nom.	Res.	Power	Cont.	E/	ACH
No.	Type	٧	Ohms		VA	1-9	10-Up
929-3785	MRR1ADSR	5	500	50	10	7.38	5.90
929-3782	MRR1ADS	5	360	70	3	5.73	4.58
929-3776	MRRIADS	6	360	100	3 .	5.73	4.58
929-3777	MRRIADS	12	1440	100	3	5.73	4.58
929-3770	MRR1BD	5	125	200	10	9.00	7.19
929-3772	MRR18D	12	500	285	10	9.00	7.19
929-3773	MRR1CDL	5	100	250		11.50	9.20
929-3775	MRR1CDL	0.2	500	285	3	11.50	3.20
929-3778	MRR2ADLX		125	200	10	9.00	7.20
929-3780	MRR2ADLX	12	500	285	10	9.00	7.20
929-3768	MRRQ1A	5	200	125	10	5.74	4.59
929-3767	MRRQ1A	12	500	288	10	5.74	4.59
929-3766	MRRQ1B	5	200	125	10	9.00	7.19
929-3765	MRRQ1B	12	500	288	10	9.00	7.19
929-3764	MRRDLIAS	5	750	33	10	11.39	9.11

ENCAPSULATED DRY-REED RELAYS

TYPE W101PCX MINIATURE RELAY

Contacts rated at 10 VA @ 1/2 amp or 200 volts DC max., non-inductive. Oper. time 1 amp or 200 voits De max, non-Inductive. Oper. time 1 ms; release ½ ms aver. Oper. life expectancy: 5,000 cycles at max. rating. Contact resistance, 150 milliohms, aver. ance, 150 milliohms, aver. Capacitance across contacts, 0.8 pF. Wt. 1 oz.



SPST-N.O. TYPES %6x1/2x11/2" (Nominal Power 600 mW)

	Mfr's				EA	CH		
Stock No.	Type W101-	VDC	Coil Ohms	1-9	10- 24	25- 49	50- Up	
850-0871 850-0872		12 V 24 V	250 1000	9.23 9.40	7.38 7.52	4.88 4.97	4.61 4.69	

TYPE W103PCX STANDARD RELAY

- Compact, Lightweight and Durable
- Fully Encapsulated for Best Performance
- Applicable for Numerous Industrial/Consumer Uses





Contacts rated 10 VA res., $\frac{1}{2}$ amp or 250 V maximum, non-ind. Operating time 2 ms average; release time $\frac{1}{2}$ ms average. Life: 25,000,000 cycles. No biasing magnet. 1 oz. SPDT TYPES %x11/4x21/4" (Nominal Power 400 mW)

	Mfr's	mA	1		EAC	H	
Stock	Type	or	Coil	1-	10-	25-	50-
No.	W103	VDC	Ohms	9	24	49	Up
850-1291		12 V	400	13.00	10.40	6.87	6.49
850-1292		24 V	1500	13.10	10.48	6.92	6.54

DPDT TYPES %x11/4x21/4" (Nominal Power 700 mW)

TYPE W104PCX MINIATURE RELAY

Contacts rated 3 VA @ 0.25 amp or 28 V, max. non-ind. Operate and release, 1 ms. average. No biasing magnet. Contact resistance, 150 milliohms average. Life, 10 million cycles. Shipping weight 1 oz.

SPDT %6x1/2x11/2" (Nominal Power 600 mW)

	Mfr's	mA	·	EACH					
Stock No.	Type W104	or	Coil Ohms	1-	10- 24	25- 49	50- Up		
850-1497 850-1498		12 V 24 V	225 1000	12.09 12.21	10.63 10.73	9.57 9.66	9.04 9.12		

TYPE W103CPX ENCLOSED **PLUG-IN RELAY**

Dry reed relay plug-in assembly. Consist of 2 or 3 Type 103 break-before-make relays with common coil, in "High impact" plastic housing. Oper., release times less than 3 ms, each. Nom. power, 300 mW. 21/2x11/2x11/2x11/2". Av. wt. 6 oz.

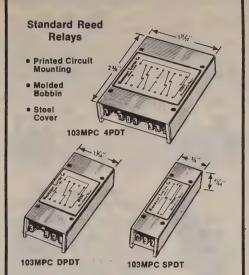


DPDT	TYPES-	8-PIN	OCTAL	PLUGS
	mA			EACH

	mA			EA	CH		
Stock No.	W103	VDC	Coil Ohms	1-	10- 24	25- 49	50- Up
850-1116 850-1117 850-1118	CPX-8 CPX-9 CPX-10	12 V 24 V 8 mA	300 1000 5000	15.55	13.60 13.66 14.25	12.29	11.61

3PDT TYPE-11-PIN PLUG

850-1121	CPX-13	24 V	650	20.25	17.80	16.02	15.13



STANDARD DRY REED RELAYS

102MPC SPST N.O. Operate time, less than 3 msec. av. Release less than ½ msec av. Gold contacts—rated 15 VA, non-inductive at 1 amp, or 250 VAC. Life expectancy 20 million operations at maximum rating. ½-watt nominal DC rating. Overall size, 2%x4%4x34". Av. shpg. wt. 1 oz.

	Coil		EACH				
Stock No.	Type W102-	V DC	Ohm	1- 9	10- 24	25- 49	50- Up
850-0952 850-0953	MPXC8 MPCX9	24 48	1000 4000	5.87 6.18	4.70 4.94	3.11	2.93 3.09

102MPC 3PST N.O. %4-watt nom. DC. Contacts, 15 VA at 1A or 250 VAC non-ind. 25% x4%4x1%6". Wt. 2 oz.

850-0970 MPCX49 850-0971 MPCX50			10.05 10.32			
------------------------------------	--	--	----------------	--	--	--

102MPC 6PST N.O. 1½-watt nom. DC. Contacts rated 15 VA at 1A or 250 VAC non-ind. 256 x4%4x31/32". Wt. 2 oz. 850-0975 MPCX54 24 375 11.17 9.82 8.84 8.35

SERIES 103MPC SPDT. Operate time, 2 msec release time, less than ½ msec av. Contact bounce, 4 millisecond av. on release. Gold contacts rated 10 VA, at ½ amp max. or 250 VDC max., non-inductive. Life, 25 million operations at max. rating. ½-watt nom. DC. 2%x4\(\lambda_4\xx11\)\(\lambda_6'''\). 3 oz.

	Type				EA	CH	
Stock No.	W103 MPCX	VDC	Coil	1-	10- 24	25- 49	50- Up
850-1211 850-1212 850-1213	-3 -4 -5	12 24 48	250 1000 4000	10.43 10.43 10.73	8.34 8.34 8.58	5.51 5.51 5.67	5.20 5.20 5.36

SERIES 103MPC DPDT, %-watt nom. DC, Contacts rated 10 VA at ½ A, or 250 VAC, 256x4%4x11%6". Shpg. wt. 2 oz.

850-1238 850-1239 850-1240	-30 -31 -32	6 12 24	175	14.90 14.90 10.12	11.94	7.88	7.44

SERIES 103MPC 4PDT. Size 3. 11/2-watt nom. DC. Con-

tacts rateu							
850-1243	-35	12	100	17.45	15.44	13.90	13.12
850-1244	-36	24	375	17.65	15.51	13.96	13.18

MINIATURE MPC Reed Relays



MINIATURE DRY REED RELAYS

SERIES 101 MPC SPST N.O. Operate time, 1 millisecond, av.; release time. 5 millisecond, av. Contact load rating: 10 VA max, at ½ A or 200 VDC max., non-inductive. Contact bounce, .5 millisecond, av. Life expectancy, 5 million operations. ½-watt nominal DC. Low profile, compact design saves space. No taller than commonly used capacitors and resistors . . . only %" high. Size, 11%x11½xx4%". Shpg. wt. 1 oz.

	Mfr's				EA	CH	
Stock	Type	Coil		1-	10-	25-	50-
No.	W101	VDC	Ohms	9	24	49	Up
850-0830	MPCX1	6	70	6.30	5.04	3.24	3.06
850-0831	MPCX2	12	300	6.30	5.04	3.24	3.86
850-0832	MPCX3	24	1100	6.35	5.08	3.27	3.09

I.C. COMPATIBLE REED RELAY 850-0840 MPCX104 5 450 7.38 5.90 3.90 3.68

LOW-PRICED MINIATURE RELAYS (less cover)

	Mfr's			EACH				
Stock	Туре		Coil	1-	10-	25-	50-	
No.		ايرابط	Ohms	9	24	49	Up	
	MPCX123			4.73	3.78	2.50	2.36	
850-0844	MPCX124	24	1100	4.73	3.78	2.50	2.36	

SERIES 104MPCX SPDT. Operate/release time, 1 millisecond, av. Contact bounce: N.O., 0.5 millisecond; NC. 2 milliseconds. Rated 3 VA max. at ¼ A or 28 volts max. Life expectancy, 10 million operations at rated load. ½-watt nom. DC. Contact resistance, 150 milliohms, aver. Size, 1½x1½x2½°, Shipping weight 1 oz.

850-1441 MPCX2 12 300 11.95 9.56 6.15 5.81 850-1442 MPCX3 24 1100 12.00 9.60 6.17 5.82

 SERIES
 104MPCX
 DPDT.
 .7-watt
 nominal.
 DC.
 Operate/release time, 1 ms.
 average.
 Contact Bounce, less than ½ ms.
 average.
 NC contacts.
 less than 2 ms.
 NC contacts.

 1/½ x3/xx/x6/m
 Shipping
 weight 3 oz.
 3 oz.
 850-1445
 MPCX6
 12
 220
 13.59
 11.63
 10.47
 9.89

 850-1446
 MPCX7
 24
 850
 13.62
 11.55
 10.49
 9.90

MICROMINIATURE DRY REED RELAY
SERIES 105MPC SPST N.O. Operative time, 250 microseconds, average. Release time, 500 microseconds, average. Rating: 0.1 VA max. at 10 mA or 12 volts max. non-inductive. 0.3 watts nominal, DC. Contact resistance, 200 milliohms, average. Life expectancy, 10 million operations at rated load. %x1\(\frac{1}{2}\)2x\(\frac{1}{2}\)2x\(\frac{1}{2}\)2.

	Mfr's			EACH				
Stock	Type W105	Coil		1-	10-	25-	50-	
No.	W105	VDC	Ohms	9	24	49	Up	
850-1548	MPCX2	12	500	9.78	7.82	5.17	4.88	

MINIATURE ENCAPSULATED RELAYS

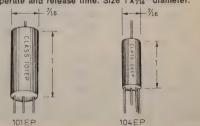
• Fully Encapsulated in Epoxy Resin

Fully encapsulated in epoxy resin, highly resistant to mechanical shock, excessive humidity and corrosive atmospheres. Precious metal contacts. Type 101: SPST-N.O. contact load rating, 12 VA at ½ amp. max. or 200 VAC max. non-inductive. Operate 1 ms.

Stock No.		Co		EACH					
	Mfr's	Rati	ngs	1-	10-	25-	50-		
	Type	VDC	Ohms		10- 24	49 .	Up		
850-0806 850-0807	W101EPX-6 W101EPX-7		225 1000	6.48 7.58	5.18 6.06	3.42 4.01	3.23 3.78		
850-1411 850-1412	W104EPX-3 W104EPX-4	12 V 24 V	225 1000		10.54 11.52	6.97 7.61	6.58 7.18		

Precious Metal Contacts for Reliability

Release $\frac{1}{2}$ mx. average. Contact resistance, 150 milliohms average. 1 x $\frac{7}{16}$ dia. Type 104: SPDT, 3 VA maximum at $\frac{1}{2}$ A or 28 V maximum non-inductive. 1 ms operate and release time. Size 1 x $\frac{7}{16}$ diameter.



Dry Reed Relays

MERCURY-WETTED-CONTACT REED RELAYS

W131PCX ENCAPSULATED MAGNEERED



- Printed Circuit Contacts
- Fast Low Level Switching
- No Contact Bounce
- Epoxy-Encapsulated

Epoxy-encapsulated, mercury-wetted-contact reed relays with PC contacts. Fast low-level and low-level substitutes of the property of the prope

SPST %16X1/2 X1 1/2"

	Mfr's			EACH				
Stock	Туре	Coil		1-	10-	25-	50-	
No.	W131-	٧	Ohms	9	24	49	Up	
850-1738	PCX-10	24	1000	10.27	8.98	8.08	7.63	

DPST %6X11/6X11/2"

850-1741 PCX-13 12 150 12.74 11.19 10.07 9.51

MRR AND RR SERIES **RELAYS WITH AXIAL LEADS**



Leads rigidly epoxy-molded into one-piece units. Leads Leads rigidly epoxy-motoral mix offer-piece units. Leads solder directly to terminal studs or supporting wiring, or bent at right angles for PC's. Wrap-around metal cans provide magnestic shielding. MRR Series miniature type, 15 watts. RR Series standard size, 15 watts. Terminal grid spacing: MRR Series 0.115"; RR Series, 0.2".

MMR SERIES WITH MINIATURE REED SWITCHES Size: 1.062 x 425 d., except MRR2A 1.062 x .430 x .515.

Stock	Mfr's	Con-	3	011	EACH				
No.	Type	tacts	VDC	Ohms	1-9	10-24	25-49	50-Up	
929-3796		1A	6	288	6.90	5.52	4.23	4.01	
929-3797	MRR1A	1A	12	1152	6.90	5.52	4.23	4.01	
929-3798		1A	24	4600	10.15	8.12	6.22	5.90	
929-3607	MRR2A	2A	12	576	10.15	8.12	6.22	5.90	

RR SERIES WITH STANDARD SIZE REED SWITCHES Size: *1.87 x .655 dia.; †1.875 x .670 x .840.

929-4607 RR1A * 1.	12 360	5.28 4.22	3.23 3.06
929-4608 RR1A † 1.	A 24 1440	5.28 4.22	3.23 3.06

CLASS 102RMX IN-LINE POWER REED RELAYS

- High Current Switching
- High Reliability
- 3-Amp Rating
- SPST-N.O. Contacts

Standard size. SPST, normally open contacts. Rated 3 amps. Contact load rating: 100 VA at 3 amps maximum or 250 VAC. Operate time: 1.5 milliseconds. Release Time: 1 millisecond average. Contact bounce: 1 millisecond average. Provide high current switching and high reliability at low cost. Will operate in any mounting position. Dimensions: 2½ x ½ x ½ x ½ x ½ x ½ x % a. Average shpg. weight: 1 ounce.

	Mfr's	Coil		EACH				
Stock No.	Type W102-	Res., Ohms	Coil Voits	1-9	10-	25- 49	50- Up	
850-1035 850-1036 850-1037 850-1038	RMX-5 RMX-6 RMX-7 RMX-8	200 500 2000 5000	6 VDC 12 VDC 24 VDC 48 VDC	7.47 7.55 7.75 8.10	5.98 6.04 6.20 6.48	3.95 3.99 4.10 4.28	3.73 3.77 3.87 4.05	

MERCURY WETTED REED RELAYS

Series W132MPC. SPST N.O. 50 VA up to 400 VAC resistive. Operating position, upright (can be operated at up to 30° from vertical). Life expectancy more than 25 million operations. 50 milliohm contact resistance. Snap-on steel enclosure. Printed circuit pins on 0.2" grid. Size, 2%x4\(\lambda\)x4\(\tilde{x}\). Shpg. wt. 4 oz.

~~	Mfr's			EACH				
Stock	Туре		Coil	1-	10-	25-	50-	
No.	W132	V	Ohms	9	24	49	Up	
850-1755	MPCX2	6	70	10.42	8.34	5.51	5.20	
850-1756	MPCX3	12	250	10.42	8.34	5.51	5.20	
850-1757	MPCX4	24	1000	10.42	8.34	5.51	5.20	
850-1758	MPCX5	48	4000	10.72	8.56	5.67	5.36	

SPDT MERCURY WETTED REED RELAYS

Series W133 MPC. 50 VA at up to 400 VAC resistive. Operate/release time, 2 milliseconds average. Operated position, upright (can be operated at up to 30° from vertical). Life expectancy, more than 25 million operations. 50 milliohm contact resistance. Snap-on steel enc osure. Printed circuit pins on 0.2" grid. Size, 2%x4%x3%". 4 oz.

	Mfr's								
Stock	Type		Coil	1-	10-	25-	50-		
No.	W133	V	Ohms	9	24	49	Up		
850-1796	MPCX2	6	70	10.05	8.84	7.96	7.51		
850-1797	MPCX3	12	250	10.05	8.84	7.96	7.51		
850-1798	MPCX4	24	1000	10.05	8.84	7.96	7.51		

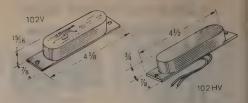
W131MPC MINIATURE MODULAR RELAYS

- Printed Circuit Contacts
- Snap-On Steel Enclosures
- Contacts Rated 28 VA
- Life at Rated Load— 100 Million Cycles

Modular packaged mercury-wetted reed relays with PC contacts. Snap-on steel enclosures. Contacts rated 28 VA at 1 A or 100 V Life at rated load, 100 million cycles. All N.O. contacts. In table, suffix 3-4 have SPST-N.O. (1 form "A") contacts; nominal power, 600 mW; size, 36x13/3x1". Suffix 8-9 have DPST-N.O. (2 form "A") contacts; nominal power, 700 mW; 3x3/3x1". Av. shpg. wt., 4 oz.

Type				EACH					
Stock	131		Coil	1-	10-	25-	50-		
No.	MPCX	V	Ohms	9	24-	49	Up		
850-1716	-3	12	300	11.57	9.26	6.12	5.78		
850-1717	-4	24	1100	11.70	9.36	6.17	5.83		
850-1721	-8	24	850	13.91	12.23	11.01	10.40		
850-1722	-9	48	3300	14.26	12.53	11.78	10.65		

HIGH-VOLTAGE REED RELAYS



Type W102V. Molded constr. SPST N.O. contacts rated 50 VA at 3 A, 5000 VDC max. resistive. Operate 3 ms. Cover internally insulated, offers shielding. 4½x½½x½″. Type W102HVX. Molded PC package. SPST N.O. contacts rated 10,000 V at .001 A max. non-ind. Norn. Pwr.: 1.5 mW. 4½x¾x½″. Type W102UHVX. SPST N.O. contacts rated at 20,000 VDC max. at .001 amps max. non-ind. Av. wt. 3 oz.

5000 VOLTS

	Mfr's				EAC	H	
Stock No.	Type W102	VDC	Coil Ohms	1- 9	10- 24	25- 49	50- Up
850-1069 850-1070 850-1071 850-1072 850-1075	VX-50 VX-51 VX-52	6 V 12 V 24 V 48 V 24 V	70 250 1000 4000 2900	17.45 17.52 17.57 18.02 21.14	15.34 15.39 15.44 15.83 18.57	13.81 13.85 13.90 14.25 16.71	13.04 13.08 13.12 13.46 15.78

10,000 VOLTS

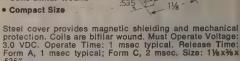
	Type W102 HVX		Coil	EACH						
No.	HVX		Ohms	1-9	10-24	25-49	50-Up			
850-0932	-3	24	400	26.54	23.32	20.99	19.82			

20,000 VOLTS

Sto	ck	Type W102	VDC	Coil	EACH						
No	٠	UHVX		Ohms	1-9	10-24	25-49	50-Up			
850-1	047	-3	24	400	42.82	34.26	31.98	26.33			

MRRNL SERIES MAGNETIC LATCHING RELAYS

- Steel Cover Provides Magnetic Shielding
- · Coils Bifilar Wound
- Compact Size



Stock	Mfr's	Con-	Coil	DC	EACH					
No.	Type	tacts		Load	1- 9	10- 24	25- 49	50- Up		
	MRRNL1A MRRNL1C	1A 1C	12 12	10W 3W	9.00 13.10		5.51 8.03			

LOW-COST IN-LINE DRY REED RELAYS



Class W101M. Miniature. SPST N.O. Contact rating: 12 volt-amps max. at 0.25 amp, or 100 VAC max. Nominal coll power, 600 mW. Operate time, 1 ms; release, 0.5 ms. Average life, 5 million operations. 21/4 x1/2 x1/6". Av. shpg. wt., 2 oz.

Class W102M. Std. size. SPST N.O. Contact rating: 15 volt-amps max. at 1 amp, or 250 VAC max. Nominal coll power, 300 mW. Operate time, 3 ms; release, 0.5 ms. Average life, 20 million operations. $3\frac{1}{2}x^{\frac{19}{23}}x^{\frac{1}{2}}$. Av. shpg. wt. 3 oz.

Class W103M. Std. size. SPDT Form C. Contact rating: 10 VA max. at 0.5 amp, or 250 VAC max. Nominal coil power, 300 mW. Operate time, 2 ms; release, 0.5 ms. Average life, 25 million operations. 3%6x1/2x11/32". Av. shpg. wt., 2 oz.

- High-speed Operation Long Life Sealed Contacts • Coil Terminal Inserts Prevent Shorts • Axial Leads
 - SPST, SPDT Standard and Miniature

CLASS 101M MINIATURE SPST

Stock	Mfr's		Coil			E	ACH	
No.	Type	mA	VDC	±10% Ohms	1- 9	10- 24	25- 49	50- Up
850-0845 850-0846 850-0847 850-0848	W101MX-1 W101MX-2 W101MX-3 W101MX-4	9	6 12 24	100 250 500 2500	3.90 3.95 3.95 4.25	3.12 3.16 3.16 3.40	1.98 2.03 2.03 2.19	1.87 1.91 1.91 2.07

CLASS 102M STANDARD SPST

						-		
850-0985	W102MX-1	40		. 100	3.90	3.12	2.06	1.95
	W102MX-2		6	200		3.22	2.12	
	W102MX-3		12	500		3.22	2.12	
	W102MX-4		24	2000		3.54	2.33	
850-0989	W102MX-5	5.5		. 5000	4.70	3.76	2.48	2.35

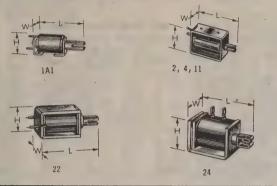
CLASS 1						
W103MX-1	6	200 500	7.57 7.57	6.06 6.08	4.00	

850-1266 W103MX-2 12 500 7.57 6.06 4.00 3.77 850-1267 W103MX-3 24 2000 7.95 6.36 4.20 3.97

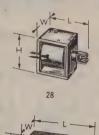
INDUSTRIAL AC AND DC SOLENOIDS

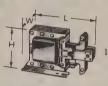
Solenoids and solenoids with switches in a wide selection of voltages and sizes. Types 11 and 28 are for either AC or DC voltages. Laminated solenoids Types 16 and 18 are for AC operation only. Choose from "Intermittent or †Continuous styles; intermittent-duty coils should not be energized for more than five consecutive minutes or be permitted to rise more than 85°C above 25°C ambient without

time for cooling between cycles; continuous-duty types will not have a temperature rise of more than 85°C at rated voltage and ambient. Solenoids with switches (suffix S in Mfr's Type No.), have SPDT molded switch rated at 10 A at 115 VAC, for switching without addition of a relay in circuit. Intermittent solenoid switch gives continuous duty with external resistor.









AC TYPES (SPECIFY TYPE NO., VOLTS AND DUTY)

*INTERMITTENT

+ CONTINUOUS

Stock	Mfrte	Volte	Ohms	Stroke a		Size, Inches	Shpg.		EAC	Η.	
No.	Type	AOIES	Onms	Ounces @		(HxWxL)	Wt.,	1-	10-	25-	50-
	,,,,,			Min.	Max.	1	Oz.	.9	24	49	Up
802-1003		120	300	8 @ 1/8	2 @ 1/2	11/16 X15/16 X13/4	41/2	7.15	5.72	3.96	3.74
802-1009		120	60	33 @ 1/8	4.5 @ 1/8	15/8 x 17/16 x 19/16	10	9.68	7.74		5.07
802-1018	2HD*	120	36	38 @ 1/8	16 @ 3/4	$1^{11}/_{16} \times 1^{7}/_{16} \times 1^{13}/_{16}$	10	11.09	10.21	9.19	8.68
802-1037	4*	120	37	23 @ 1/8	22 @ 1	15/8 x 17/16 x 2	141/2	11.55	9.24	6.39	6.04
802-1032	4†	120	133	8 @ 1/8	6 @ 1	15/8 x 17/16 x 2	141/2	11.55	9.24	6.39	6.04
802-1057	11†	24	8	12 @ 1/8	1 @ 1	13/16 x 127/32 x 15/16	71/2	6.75	5.40	3.74	3.54
802-1070	11*	115	85	25 @ 1/8	6 @ 1	13/16 x 127/32 x 15/16	71/2	6.75	5.40	3.74	3.54
802-1061	11†	115	200	12 @ 1/8	1@1	13/16 x 127/32 x 15/16	71/2	6.75	5.40		3.54
802-1082		115	100	32 @ 1/8	4@1	17/16 x 13/16 x 15/8	6	9.60	7.68		5.02
802-1080		115	150	22 @ 1/8	6 @ 3/4	17/16 x 13/16 x 15/8	6	9.60	7.68		5.02
802-1087	14*	115	11	110 @ 1/8	50 @ 11/2	21/16 x 115/16 x 27/16	19	13.40	10.72	7.42	7.00
802-1085	14†	115	18	60 @ 1/8	35 @ 11/2	21/16 x 115/16 x 27/16	19	13.40	10.72	7.42	7.00
802-1094	16*	115	41	90 @ 1/8	30 @ 3/4	17/16 x 11/4 x 15/8	71/2	9.68	7.74		
802-1090		115	85	50 @ 1/8	10 @ 3/4	17/16 x 1 1/4 x 1 5/8	71/2	9.68	7.74		
802-1104	18*	115	8.8	280 @ 1/8	80 @ 1	$2^{1}/_{16} \times 1^{13}/_{16} \times 2^{1}/_{2}$	161/2	12.70	10.16	7.04	6.65
802-1100	18†	115	19.7	145 (a. 1/8	40 @ 1	21/16 x 113/16 x 21/2	161/2	12.70	10.16	7.04	6.65
802-1106	18*	230	45	280 @ 1/8		21/16 x 113/16 x 21/2	161/2	12.90	10.32		
802-1102	18†	230	78	145 @ 1/8	40 @ 1	21/16 x 113/16 x 21/2	161/2	12.90	10.32		
802-1130		115	500	10 @ 1/16		1x27/32 x11/4	3	6.53	5.22		
802-1156	28†	115	400	20 @ 1/16	2.5 @ 1/2	$1^{3}/_{16} \times 1^{15}/_{16} \times 1^{1}/_{8}$	31/2	6.53	5.22	3.62	3.42

DC TYPES (SPECIFY TYPE NO., VOLTS AND DUTY)

*INTERMITTENT ** † CONTINUOUS

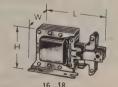
Stock	Mfr's		, ,	Stroke an		Size, Inches	Shpg.				
No.	Туре	Volts	Ohms	Ounces @ Min.	Max.	(HxWxL)	Wt., Oz.	1-	10- 24	25- 49	50- Up
802-1016 802-1039 802-1047	4*	24 115 24	20 346 15	100 @ ½8 110 @ ½8 156 @ ½8	5 @ 3/4 4 @ 1 21 @ 3/4	1 ¹¹ / ₁₆ x1 ⁷ / ₁₆ x1 ²⁵ / ₃₂ 1 ⁵ / ₈ x1 ⁷ / ₁₆ x2 ¹ / ₁₆ 1 ⁵ / ₈ x1 ⁷ / ₁₆ x2 ³ / ₁₆	13 14½ 15	11.42 11.55 12.28	10.52 9.24 9.82	9.47 6.39 6.80	-
802-1042 802-1064 802-1055 802-1068 802-1059	11* 11†	24 6 6 24 24	50 2 4.5 32 72	70 @ ½8 34 @ ½8 25 @ ⅓8 34 @ ⅓8 25 @ ⅙8	1 @ 3/4 2 @ 1/8 1 @ 1/8	15/8 x17/16 x23/16 13/16 x15/16 x1 1/8 13/16 x127/32 x15/16 13/16 x127/32 x15/16 13/16 x127/32 x15/16	15. 7½ 7½ 7½ 7½ 7½	12.28 6.75 6.75 6.75 6.75	5.40 5.40	6.80 3.74 3.74 3.74 3.74	3.54 3.54
802-1074 802-1063 802-1073 802-1115 802-1111	11P* 11P† 11S†	24 24 24 6 6	32 72 72 4 9	34 @ ½8 25 @ ⅓8 25 @ ⅓8 24 @ ⅙6 13 @ ⅙6	2 @ 1/8 1 @ 1/8 2 @ 3/4 1 @ 3/8	13/16 x 15/16 x 1 1/8 13/16 x 15/16 x 1 1/8 13/16 x 12/32 x 15/16 3/4 x 3/4 x 11/4 3/4 x 3/4 x 11/4	7½ 7½ 7½ 7½ 2½ 2½ 2½	7.83 7.83 8.98 5.63 5.63	6.26 6.26	4.34 4.34 4.98	4.10 4.10
802-1113 802-1150 802-1163 802-1154	28† 28*	24 12 24 24	144 27 50 104	13 @ ½16 24 @ ½16 35 @ ½16 24 @ ½16	.5 @ 3/8 1 @ 3/8 2 @ 1/2	3/4 x 3/4 x 11/4 13/16 x 15/16 x 11/8 13/16 x 15/16 x 11/8 13/16 x 15/16 x 11/8	2½ 3½ 3½ 3½ 3½	5.63 6.03 6.03 6.03	4.82 4.82		2.94 3.15 3.15 3.15

Please specify Allied Stock Number, Manufacturer's Type Number, Volts and Duty.

DC PULL-TYPE OR AC/DC PUSH-TYPE SOLENOIDS

12, 24 AND 120 VOLT AC/DC PUSH-TYPES

Intermittent or continuous duty. Lengths of the push rods are equal to the maximum stroke length specified. Type 11P and 28P are approximately 20% less power than listed. Other specifications same as Tubular Pull Types.





tock	Mfr's			Ohma		and Lift	Size	Shpg.	EACH				
No.	Type	Duty	Volts	Ohms	Ounces (Inches	L. x Dia.	Wt.,	1-	10-	25-	50-	
40.	Турс				Min.	Max.	L. A Dia.	Oz.	9	24	49	Up	
-1071	11P	int.	24AC	3.5	25 (a. 1/8	6@ 1/2	15/16 x 127/32 x 3/16	71/2	7.83	6.26	4.34	4.10	
-1062	11P	Cont.	. 24AC	8	12 @ 1/8	1@1	15/16×127/32×3/16		7.83	6.26	4.34	4.10	
-1072	11P	- Int.	120AC	85	-25 @ 1/8	6@1	15/16x127/32x3/16	71/2	7.83	6.26	4.34	4.10	
-1065	11P	Cont.	120AC	200	12 @ 1/8	1@1	15/16x127/32x3/16	71/2	7,83	6.26	4.34	4.10	
-1096	16P	Int.	120AC	41	90@1/8	30 @ 3/4	15/8 x 11/4 x 15/8	71/2	11.13	8.90	6.16	5.81	
-1097	16P	Cont.	120AC	85	50 (a. 1/8	10@ 3/4	15/8 x11/4 x15/8	71/2	11.13	8.90	6.16	5.81	
-1107	18P	Int.	120AC	8.8	280 a 1/8	80 @ 1	21/16x113/16x21/2	161/2	14.98	11.98	8.30	7.84	
-1108	18P	Cont.	120AC	19.7	145.0 1/8	40 @ 1	11/16×113/16×21/2	161/2	14.98	11.98	8.30	7.84	
-1143	28P	Cont.	24AC	17,4	20 (0. 1/16	2.5 @ 1/2	13/16×15/16×11/8	31/2	6.90	5.52	3.83	3.61	

802-1147 28P Cont. 12DC 27 24(a 1/16) 1(a 3/8) 11/16x15/16x11/2 31/2 6.68 5.34 3.69 3.49

TUBULAR PULL TYPES-24 VDC

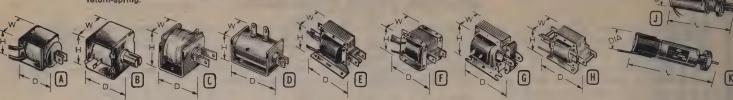
Intermittent types should not be energized over 5 minutes or allowed to rise beyond 85°C above 25°C ambient temp, without cooling, Continuous types will not have temperature rise of more than 85°C above 25°C ambient @ rated voltage. Threaded bushing. Life, 10,000,000 operations.



Stock	Mfr's				Strokes	and Lift	Size ·	Shpg.		EA	CH	
No.	Type	Duty	Volts.	Ohms		Inches	L. x Dia.	Wt.,	1-	10-	25-	50-
140.	Type				Min.	Max.	L. A Dia.	Oz.	. 9	24	49	Up
802-0538	TP8X16	Int.	24DC	15	65 (a), 1/10	13/4 (0 1/4	1x1½		12.35	9.88	6.84	6.46
802-0550	T3.5X9	Cont.	24DC	295	4.5 (11 1/32	.25 (a 5/16	11/8 x 1/16	2	8.25	6.60	4.57	4.32
802-0560	T4X12	Int.	24DC	48	15 (a 1/32	1 (11 3/4	11/2×1/2	9	8.30	6.64	4.59	4.34
802-0564	T4X16	Int.	24DC	29	17 (a 1/32	.5 (0 11/8	2x1/2	15	9.18	7.34	5.08	4.79
802-0568	T6X12	Int.	24DC	48	30 (a 1/16	1 (0 1/8	1½ x¾	14	8.70	6.96	4.82	4.56
802-0566	T6X12	Cont.	24DC	125	16 (a 1/16	1.5 (0 1/2	1½ x¾	14	8.90	7.12	4.92	4.65
802-0574	T8X16	Cont.	24DC	95	32 (a 1/16	2 (a 5/8	2x1	6	10.70	8.58	5.94	5.61
802-0580	T12C13	Int.	24DC	14	150 (a, 1/8	8 (a, 1/8	15/8×11/2	10	14.43	11.54	7.99	7.55
802-0578	T12X13	Cont.	24DC	90	48 @ 1/8	1 (0, 3/4	15/8×11/2	10	14.48	11.58	8.01	7.57
802-0584	T12X19	Int.	24DC	9.5	165 (a. 1/8	6 (a. 11/2	23/8×11/2	10	10.25	9.44	8.50	8.02
802-0582	T12X19	Cont.	24DC	59	80 @ 1/8	1 (9. 11/4	23/8×11/4	10	10.34	9.52	8.57	8.09

Solenoids, Coaxial Relays and Reed Switches

Fig. A, B Super-D box-frame solenoids; hi-seating pull; anti-residual spring; phenolic bobbin; hi-temp. rating. Fig. C, D Super-U folded-frame light duty. Fig. E, F, C-1 general purpose; zinc-dichromate coat. Fig. G Super-T laminated; zinc-dichromate coat; bake-lite bobbin; stainless steel anti-residual spring. Fig. H, C-1 machine-tool laminated; zinc-dichromate coat. Fig. J tubulars; stud mounting, anti-turn; stainless steel plunger cavity; friction reducing coat on plungers. Fig. K, push-type of Fig. J, with built-in



AC TYPE SOLENOIDS

Specify Mfr's Type No., Volts, Duty-*Inter. †Cont. §Push-Pull. Av. Shpg. wt. 11/2 lbs.

Stock	Mfr's					Max.				, EA	CH	
No.	Type	Fig	٧	Ohms	A	Stroke (In.)		(Inches)	1- 24	25- 49	50- 99	100- Up
769-6200		A A B B B	*115 †115 *115 †115 †115	964 1500 338 580 234	.07 .04 .12 .03 .10	1/4 1/4 1/2 1/2 5/8	19 13 32 13 32	3/4x3/4x49/64 3/4x3/4x49/64 15/16x13/16x19/64 15/16x15/16x119/64 15/16x15/16x113/64	5.20 5.20 5.67 5.67 6.14	4.21 4.21 4.55 4.55 4.94	3.18 3.18 3.44 3.44 3.75	2.66 2.66 2.89 2.89 3.13
	B24-1-A-1 C9-519-A-14 C9-19-A-14	BBCCC	†115 †115 *115 †115 †115	119 173 74 172 113	.12 .11 .37 .13 .245	1 1¼ ½ ½ ½ ½	29 16 80 50 72	115/32x15/16x133%4 15/16x15/16x2 113/32x13/6x11/16 113/32x13/6x11/16 113/32x13/6x127/32	8.45 7.94 4.59 4.66 4.66	6.75 6.37 3.69 3.76 3.76	5.11 4.80 2.79 2.82 2.82	4.27 4.08 2.36 2.38 2.38
769-6341 769-6342 769-6315 769-6318 769-6322	C8-2004-1 1-1 6-1	DDEEE	†115 *115 *115 †115 †115		.083 .174 .55 .23 2.7	1/2 1 1/2	16 35 144 64 800	%x%x1% %x%x1% 2%2x1 ²⁵ %2x2½ 2%2x1 ²⁵ %2x2½ 3%ex24x3%	3.96 3.88 10.77 10.77 19.99	3.20 3.11 8.62 8.62 16.02	2.40 2.38 6.50 6.50 12.03	2.02 1.99 5.45 5.45 10.06
769-6321 769-6347 769-6333 769-6326 769-6324	447-1 158-1 16-1	**************************************	†115 *115 †115 *115 †115	6.4 1 3.54 23 56	.63 4.2 .8 .56 .21	11/2 2 2 1 1	288 800 256 112 96	31/16x21/x3% 31/16x25/x3% 31/16x25/x3% 23/12x125/2x21/2 23/12x125/2x21/2	23.93 23.93 12.65	19.18	12.03 14.39 14.39 7.62 7.62	11.99
769-6332 769-6329 769-6346 769-6351	45-1 446-1	PF F IL G	*115 †115 *115 †115	1.94 7.1 1.07 88	.68	2 2 2 3/4	768 320 608 80	3¼x2¹¼ex3¼ 3¼x2¹¼ex3¼ 3¼x3¼ex3¼ 1½ex1½ex2¼	30.00	24.01 28.32	18.05 18.05 21.28 5.36	15.07
769-6355 769-6357 769-6362 769-6359 769-6364	2005-M-1 2255-M-1 2006-M-1	00000	*115 †115 *115 †220 †115	57.2 20.5 18.3 81.6 14.9	.38 .41 .54 .20 .45	11/16 11/16 11/16 11/16	112 176 192 176 256	1%ex1%ex2% 2%ex11%ex3 2%ex113%ex3 2%ex113%ex3 2%ex2%ex3	8.85 10.58 10.33 10.90 12.92	7.13 8.55 8.32 8.80 10.35	5.36 6.55 6.36 6.77 7.75	4.50 5.41 5.24 5.56 6.53
769-6367 769-6370 769-6374 769-6380	3000-M-1 3500-M-1	G G G H	*115 †115 *115 *110	11.7 6.2 4.8 14.9	.77 160 1.15 .85	1½e 1% 1% 1% 136	392 352 416 208	2½10x2½10x3 215/10x236x313/10 215/10x236x313/10 23/32x23/10x43/10	15.74	9.72 13.52 12.60 16.50		6.16 8.57 7.95 10.37

PRECISION-MADE COAXIAL RELAYS

Maximum operate and release time is 20 milliseconds. Gold-plated, fine silver contacts assure reliable low-level operation. Minimum life expectancy is 1,000,000 cycles, when switch is operated at speeds of less than 10 Hz. Switches are impedance matched to 50-ohm cable, though loss is negligible with 75-ohm cable. Operation is break-before-make. Units meet applicable portions of military connector specifications as follows: BNC connectors, MIL-C-3608; Type N connectors, MIL-C-71. All materials used are corrosion resisting types or are suitably plated to withstand the 48-hour test condition "B" requirement of MIL-STD-202. *Transfer type SAL348/U.









327









Stock	Mir's	Termi-	Action	Connec-	Freq.	Power	Coil	Coil	Wt.,	EA	CH
No.	Type	nation	11011011	tors	(MHz)	(W)	Volts	Ohms	Oz.	1-4	5-Up
713-7481	315-010002-3	Open	SPDT	BNC	1000	100	26 DC	280	4	33.38	26.95
713-7482	316-010082-3	Short	SPDT	BNC	2750	100	26 DC	280	41/2	41.03	32.76
713-7483	316-010102-8	Short	SPDT	BNC	2750	100	115 AC	550	61/2	43.75	34.93
713-7484	317-010202-3	Short	SPDT	BNC .	2750	100	26 DC	280	41/2	38.97	31.12
713-7485	318-010381-0	Short	SPDT	BNC	2750	100 "	lever manual		41/2	41.71	33.30
713-7486	318-010382-3	Short	SPDT	BNC	2750	100	26 DC	280	41/2	38.86	31.16
713-7487	318-010395-8	Short	SPDT	BNC	3000	100	115 AC	550	61/2	41.71	33.30
713-7479	318-010407-3	Open	SPDT	BNC	2750	100	26 DC	280	41/2	38.86	31.02
713-7477	318-011165-3	Res.	SPDT	BNC	2750	100	26 DC	280	41/2	48.98	39.09
713-7501	318-011576-8	Res.	SPDT	BNC	2750	100	115 AC	550	61/2	51.70	41.28
713-7491	319-011141-0	Open	SPDT	BNC	1000	100	rotary manual		41/2	67.68	54.04
713-7502	320-010931-3	Open	SPDT	N ·	1200	1000	26 DC	200	20	100.93	80.58
713-7503	321-011064-3	Open	DPDT	BNC	1000	100	26 DC	200	10	53.35	42.60
713-7495	323-011651-3	Open	1P4T	BNC	980	190	26 DC	280	14	75.23	60.06
713-7504	322-011442-0	Open	1P6T	BNC	2750	100	rotary manual		12	98.46	78.61
713-7496	323-011506-3	Short	1P4T	BNC	1500	100	26 DC	280	14	75.23	60.06
713-7497	325-011641-3	Open	1P6T	BNC	900	100	26 DC	280	21	96.27	76.86
713-7498	327-010582-3°		Transfer	BNC	1000	100	26 DC	280	101/2	54.00	43.12

DC TYPE SOLENOIDS

Specify Mfr's Type No., Volts, Duty-*Inter, †Cont. Shpg. wt. 11/2 lb

Stock	Mfr's	. 7				Max.		HxWxD	EACH			
No.	Туре	Fig.	V	Ohms	A	Stroke (In.)	Lift (Oz.)	(Inches)	1- 24	25- 49	50- 99	100- Up
769-6205	B18-259-A-3	В	†24	119	.2	1/4	11	3/4 X 3/4 X 5 9/6 4	5.20	4.21	3.18	2.66
769-6224	821-754-A-1	В	*12		1.7	5/6	72	15/1ex15/1ex113/64	6.14	4.94	3.75	3.13
	B22-754-A-1	В	*12		2.3	1	144	115/32X15/16X139/64	8.45	6.75	5.11	4.27
769-6239	B24-255-A-1	В	†6		1.5	11/4	60	15/16X15/16X2	7.94	6.37	4.80	4.03
769-6245	B24-754-A-1	В	*12	6.3	1.9	11/4	96	15/1ex15/1ex2	7.94	6.37	4.80	4.03
769-6237	B24-253-A-1	В	†24	60	.4	11/4	60	15/1ex15/1ex2	7.94	6.37	4.80	4.03
	B24-251-A-1	B	1115	1348	.09	11/4	60	15/16X15/16X2	7.94	6.37	4.80	4.03
	B25-754-A-1	В	°12		2.1	2	104	115/32X15/16X21/2	11.03	9.17	6.91	5.77
	C8-772-A-14	0	*12		.81	1/2	26	13/16X3/4X1 1/8	3.54	2.86	2.17	1.84
769-6257	C8-271-A-14	C	†24	126	.19	1/2	13	13/16X3/4X11/8	3.70	2.97	2.26	1.92
	C8-269-A-14	C	1115		.05	1/2		13/16X3/4X11/8	3.80	3.03	2.32	1.96
769-6262	C8-769-A-14	C	*115	1500	.08	1/2	26	13/18X3/4X11/8	3.62	2.91	2.21	1.86

DC TUBULAR AND PUSH TYPES

1½ lbs.	140.,	VOIC	o, Duty		111611111	ttoiit.	Toominaous	. +r uic	. Av.	. Onpe	3. W.L.
769-6275 P2-1L	1 11	†12	39	.33	1/4	11	1x1½ dia.	8.10	6.47	4.93	4.14
769-6276/P2-2L	l il	124	167.5	.15	1 1/4		1x½ dia.	8.93	6.66	5.08	4.24
769-6281 P2-201L	J	±12	6.85	1.85	5/18	24	1x½ dia.	8.10	6.47	4.93	4.14
769-6282 P2-202L	J	124	30.5	.83	5/18	24	1x½ dia.	8.93	6.66	5.08	4.24
769-6285 P4-1L	J	†12	23.25	.55	1/2	45	1½x¾ dia.	9.90	7.90	6.01	5.03
769-6286 P4-2L	J	124	99	.26		45	11/2x3/4 dia.	10.09	8.07	6.13	5.15
769-6289 P4-101L	J	*12	15.25	.83	1 %	55	1½x¾ dia.	9.90	7.90	6.01	5.03
769-6290 P4-202L	J	124	15.25	1.7	5/8	70	11/2x3/4 dia.	10.09	8.07	6.13	5.15
769-6292 P6-1L	1	†12	19.5	.65	5/8	100	2x1 dia.	11.86	9.47	7.18	6.02
769-6293 P6-2L	J	†24	82	.31	5%	100	2x1 dia.	12.08	9.64	7.31	6.13
769-6296 P6-101L	J	*12	8.4	1.5	5%	125	2x1 dia.	11.86	9.47	7.18	6.02
769-6297 P6-202L	1 1	‡24	14.25	1.8	%	150	2x1 dia.	12.08	9.64	7.31	6.13
769-6301 P8-2L	K	†24	167.5	.15	1/4	6	2x½ dia.	11.09	8.83	6.70	5.59
769-6304 P8-101L	K	*12	30.5	.42	1/4	11	2x½ dia.	10.79	8.60	6.50	5.46
769-6305 P8-201L	K	‡12	6.9	1.85		20	2x½ dia.	10.79	8.60	6.50	5.46
769-6306 P8-202L	K	‡24	30.5	.83		20	2x½ dia.	11.09	8.83	6.70	5.59
769-6308 P10-1L	l KI	112	23.3	.55		40	2.6x¾ dia.		10.21	7.71	6.48
769-6309 P10-2L	K	†24	101.5	.26		40	2.6x¾ dia.		10.46	7.91	6.61
769-6311 P10-101L	1 K 1	°12	15.3	.83	1/4	48	2.6x¾ dia.	12.84	10.21	7:71	6.48

TEMPERATURE SENSING

REED SWITCHES .250 ma .670 max -1.235 nom

For Instrumentation, Liquids or Semi-Solids where Temperature Control is Required

TS SERIES. Single pole single throw (SPST) temperature sensing reed switches available in normally closed (Form B) or normally open (Form A) designs. Feature automatic resetor normally open (Form A) designs. Feature automatic resetting, high repeatability, compact size and very long life. Typical applications include sensing temperature increases in highly sophisticated instrumentation, in liquids or semisolids or anywhere that temperature control is required. Contact rating: 10 W max.; 12 VA. Voltage: 100 VDC max.; 120 VAC max. Current: carry, 1 amps max.; break, 1 amp max. Five degree nominal increments are standard and the operate range is ±5°C. Overall length, 1.235″. Nom. diameter, .250″ max. Av. wt. 1.3 grams. NOTE: these temperature sensing reed switches may be affected by terromagnetic material. Other very strong magnetic fields in close proximity to these switches may cause failure or erratic operation.

FORM B-NORMALLY CLOSED

Stock	Mfr's	Temp.	EACH					
No.	Type	°C.	1-9	10-24	25-49	50-Up		
807-6500 807-6501 807-6502 807-6503 807-6504	TS0B0 TS25B0 TS50B0 TS70B0 TS100B0	0 25 50 70 100	2.75 2.75 2.75 2.75 2.75 2.75	2.20 2.20 2.20 2.20 2.20 2.20	1.90 1.90 1.90 1.90 1.90	1.70 1.70 1.70 1.70 1.70		

FORM A-NORMALLY OPEN

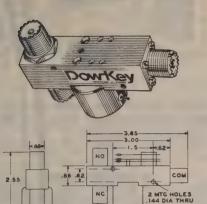
807-6505	TS0A1	i n	3.38	2.70	2.20	2.00
						2.00
807-6506	TS25A1	25	3.38	2.70	2.20	2.00
						6.00
807-6507	TS50A1	50	3.38	2.70	2.20	2.00
807-6508	TS70A1	70	3.38	2.70	2.20	2.00
807-6509	TS100A1	100	3.38	2.70	2.20	2.00
997-0003	TOTOURI	100	0.00	2.70	2.20	4.00

RF Coaxial Switches: Precision Service Tools

RF COAXIAL SWITCHES



SERIES 60 SPDT REMOTE COAXIAL RELAY

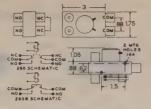


Remotely operated, ruggedly constructed, SPDT coaxial relays for operation to one kW. Specifications following for use in a 50-ohm transmission line. UHF connectors not recommended above 400 MHz. Operating time, 25 ms. max. Gold plated silver contacts. *Has two Form C 5A, 115VAC auxiliary contacts. † Has 2C aux. plus high-isolation "G" connector at the NC or receive position, for transmit-receive applications. "G" connector increases the isolation to greater than —100 dB at frequencies up to 500 MHz, but reduces power rating of the NC connector to 20 watts.

Stock	Mfr's	Coil	EACH		
No.	Туре	V	1-4	5-9	10-Up
771-6711	60-2604	115AC	43.25	34.60	24.05
771-6722	60-260442°	115AC	47.93	38.34	25.65
771-6717	60-222842†	12DC	47.93	38.34	26.65
771-6724	60-262842†	115AC	52.60	42.08	29.20

DPDT REMOTE **COAXIAL RELAY**



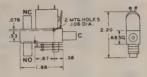


Series 260. Remote operation, ruggedly constructed co-axial relay designed for use from low level to one kilo-watt. The 260 is a standard DPDT switch with six connec-tors. Specifications: Operating time, 25 ms. Life expec-tancy, 1,000,000 cycles. Contacts, gold-plated fine silver. UHF connector type. Weight, 12 oz.

Stock	Mfr's	Coil	EACH		
No.	Турв	V	1-4	5-9	10-Up
771-6782	260-2604	115AC	73.23	58.58	51.40

SERIES 77 SPDT REMOTE COAXIAL RELAY



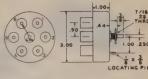


Medium size, lightweight relay for industrial and less critical military applications. The "T" shaped connector configuration has the common connector at one end and the NO and NC connectors 180° apart at the other end. With one set of Form C auxiliary contacts. Operating time, 15 ms. max. BNC connector type. Gold plated silver contacts. Weight, 3 oz.

Stock	Mfr's	Coil	EACH			
No. Type	Type	V	1-4	5-9	10-Up	
771-6745	77-230232	26DC	38.76	30.46	25.25	

SERIES 78 **MULTI-POSITION COAXIAL SWITCH**





Manually operated switches using coaxial switching members rather than wafer switches. The unused connectors are of the open, non-shorting type. Mounting: Clearance hole for %6 thread and %4 hole for locating pin. With mounting nut, lockwasher, knob, escutcheon plate. Gold plated silver contacts. Life expectancy, 100,000 cycles min. Silver plated connectors. Weight, 10 oz.

CONNECTOR LOCATIONS VS. FUNCTION

Function	- Connector Location
1P3T	1, 3, 5 and C
1P6T - '	1, 2, 3, 4, 5, 6 and C

1P3T SWITCH WITH UHF CONNECTOR

Stock	Mfr's		EACH	
No.	Type	1-4	5-9	10-Up
771-6756	78-0304	42.25	33.80	29.25

1P6T SWITCH WITH UHF CONNECTOR

Stock	Mfr's		EACH	
No.	Type	1-4	5-9	10-Up
771-6761	78-0604	47.26	37.81	32.70

1P6T SWITCH WITH BNC CONNECTOR

Stock	Mfr's		EACH	
No.	Туре	1-4	5-9	10-Up
771-6759	78-0602	53.77	43.02	37.25

PRECISION TOOLS FOR RELAYS AND OTHER COMPONENTS

K-600 20-PIECE ELECTRONIC TOOL SET



POCKET-TYPE CONTACT BURNISHERS

6 blades in plastic pen. 41/2 x3/6" dia. 830-0357. PB-7 Pen, 6-0.007"



830-0356. PB-3 Pen, 6-0.0035" Ea. 11.37 830-0212. B-7 Blades for PB-7 Pen Pkg. of 25 Blades . Ea. 10.37 830-0211. B-3 Blades for PB-3 Pen Pkg. of 25 Blades . Ea. 11.00

POCKET-TYPE BURNISHERS

P-4 & P-6 BURNISHERS, Leave no residue on contact. Replaceable blades, Insulated, Pocket clip. % x

blades. Insulated. Pocket CIIP. 7a x 5½". 5 oz. P-4. With 12 RB4 (¼x1¼") blades. 830-0366. Ea. 10.37 5-Up. Ea. 8.30 P-6. With 12 RB6 (¾x1¾") blades. 830-0370. Ea. 10.37 5-Up. Ea. 8.30 Replacement Blades. For above, 2 oz. 830-0375. RB4. Ea. 10.37 5-Up Ea. 8.30 830-0377. RB6. Ea. 10.37 5-Up Ea. 8.30

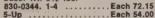


KR-6 8-PIECE TOOL KIT

Compact tool kit for setting, adjusting, testing relays. Carbon steel, polished finish. Kit Includes the following: spring adjuster; armature arm bender; armature stop bender; duckbill piler; contact burnisher; 0-50 gram spring tension gauge; swivel head screw-driver; fine point tweezer. With storage 830-0354..Ea. 44.26 5-Up..Ea. 33.00



MASTER TOOL KIT K-55 15-PC.





CONTACT SPATULAS

Diamond-faced contact spatulas clean with gentle pressure; do not disturb contact gap. Type 200. 019" diamond grain. Type 300. 017" diamond grain. . . 2 diamond faces. Type 400. 011" diamond grain. Type K-234, Set of one each in plastic case. 6" long. *Per set. Ship. wt. 2 oz.

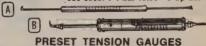
Stock No.	Mfr's Type	For Relays	Price EACH
830-0240 830-0244 830-0248	D-200 D-300 D-400	Industrial Intermediate Sensitive	13.37 13.37 13.37
830-0349	K-234	Set of 3	*25.63

SPRING **TENSION** GAUGES

G-50 SPRING TENSION GAUGE. 5 gram steps, both sides (0-50 grams). 5 oz. 830-0294, 1-4 Ea, 13,90 5-Up Ea, 11,95

G-150 SPRING TENSION GAUGE. 10 gram steps, both sides (0-150 grams). 5 oz.

830-0305. 1-4 Ea. 13.90 5-Up Ea. 11.95



A GPP-1 0-1000 GRAMS. Where accurate measurement of tension and compression of spring loaded devices is required. Measures spring tension of relays, switches, contacts, other spring loaded devices. Also measures triggers, pull pins, pushbuttons and may be used for fine wire pull tests. Scale calibrated in 50 gram steps. 5%" dia. 11" 1.

dia., 11" 1. 830-0328. Wt. 6 oz. 1-4...Ea. 46.76 5-Up...Ea. 36.00

B GPP-2 0-110 GRAMS. Measures tension, compression of spring loaded devices in 5 gram steps. %" dia., of spring loaded devices in 5 gram steps.

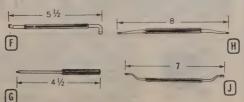
830-0329. Wt. 2 oz. 1-4...Ea. 25.05 5-Up...Ea. 18.80 CLEANING AND ADJUSTING TOOLS 2 oz.

D CHITTONIA C Ø 0 EACH Description (Inches) Stock | Care | Type Fig. No. 830-0339 J-34 830-0380 S-187 830-0480 WB-65 D E

RELAY SPRING ADJUSTING TOOLS

Of plated and polished high carbon steel, heat treated and tempered, insulated handles. Av. shpg. wt. 3 oz.

Stock No.	Mfr's Type	Fig.	Description	Slot Width (In.)	Lgt (In.	h. EA.
830-0396	SA-6A	FOIL	Cross, lengthwise slots	.030	5½	9.25
830-0404	SA-7		For miniature relays	.015	4½	4.75
830-0412	SA-17		For all relay types	.023	8	11.38
830-0392	SA-2		Gen. type, chisel edge	.023	7	9.38



Complete Listings of Relay Sockets

MINIATURE SOCKETS



For miniature relays. *For Type 62 Universal Miniature Plug-In Relays. †For Series 70 General-Purpose Relays.

Stock	Mfr's	Socket		EACH	
No.	Type	Termination	1-9	10-49	50-Up
917-0050 917-0053 917-0056 917-0074 917-0076	AD22° AD24° AD26° AD41° AD42°	2 Pole Solder 4 Pole Solder 6 Pole Solder 2 Pole P.C. 4 Pole P.C.	1.02 1.22 1.77 1.02 1.22	.81 .98 1.42 .81	.52 .62 .90 .52
917-0078 917-0084 917-0086 917-0087	AD43° AD64† AD65† AD66†	6 Pole P.C. 2 Pole Solder 4 Pole Solder 6 Pole Solder	1.77 1.02 1.22 1.77	1.42 .81 .98 1.42	.90 .52 .62 .90

SOCKETS FOR SERIES 76 RELAYS





For Series 76 General Purpose Subminiature Relays Type AD74, .91" W x 1.14" L; AD85, 1.14" W x 1.64" L

Stock	Mfr's	Socket	EACH			
No.	Type	Termination	1-9	10-49	50-Up	
917-0099	AD74	2 Pole Solder	1.40	.75	.71	
917-0092	AD85	4 Pole P.C.	1.60	.85	.81	

RELAY COVERS FOR PR, PM, AND MR

TYPE 35D013. Has sheet steel base, knockouts for ½"-dia. conduit and alumi- 3½ 51/6 PR num cover with 2 screws. Gray enamel. 3½ x53% x55%. Mounts 3 No. 10 holes on 1½ x4½" centers. Wt., 1 lb.

TYPE 35D227. Size, 313/6x313/6x5/8". 1 lb. TYPE 35D130. Size, 2132x23x23x33x". 81/2 oz.



Stock	Mfr's	Use		EA	CH	
No.	Type	With	1-9	10-24	25-49	50-Up
886-1455 886-1480 886-1470	35D013 35D227 35D130	PR PM MR	6.40 6.40 4.25	5.12 5.12 3.40	3.42 3.42 2.28	3.24 3.24 2.16



SOCKETS FOR KUP SERIES

Standard: all are rated 10 amperes, Will accept .187-In. terminals of all Series KU and plain case Series KUP relays. *Type 9KU3 hold-down spring.

Stock	Mfr's	Socket Term.	EACH				
No.	Type		1-9	10-24	25-49	50-Up	
886-1420 886-1421	9KU1 9KU2	Solder P.C.	1.40	1.12	.81	.77	
886-1425 886-1422	9KU6 9KU3	Screw *Spring	6.12	4.90	3.52	3.33	

ATTENTION PURCHASING AGENTS

See Our Quick Index at Beginning of Relay Section for Full Listing of Quality Relays

Allied Electronics maintains complete stocks of popular industrial and military types of relays for same-day shipment in industrial quantities.

RELAY SOCKET ASSEMBLIES

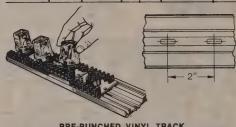




PC track-mounted socket assemblies (up to 24) snap vertically in or out of 48" pre-punched vinyl track (below). Design gives spring retention of each assembly. Sockets can be spaced out in track, leaving spaces for marking strips; have recessed slotted center post so relays can be rocked out without danger of fracturing posts. Glass epoxy G-10 board, wave soldered and coated. Barrier type terminal blocks with screws are permanently marked. RS14, -15 for miniature 4PDT relays with 2 coil leads and gnd. have 2-56 wire clamp for wire sizes to #16. Others, 6-32 screws for wire to #12. RS8 for 2PDT; RS11, -12 for 3PDT. Av. shpg. wt. 4 oz.

RELAY SOCKET ASSEMBLIES

Stock No.	Mfr's Type	Contacts	A	٧	Size, Inches WxDxH	EACH
764-1008 764-1011 764-1012 764-1014 764-1015	RS8 RS11 RS12 RS14 RS15	Octal 11 11 14 15	10 10 10 5	250 250 250 125 125	2%x2x13/32 2%x2%x13/32 3%x2%x11/16 2%x2x23/32 25/16x21/4x23/32	3.35 4.75 5.43 7.33 7.68



PRE-PUNCHED VINYL TRACK

" center-to-center mounting slot dimension. Mount with or 3 holes per track. Gut to any length, 6 oz.

Stock No.	Type	WxL (Inches)	For Sockets	EACH
764-1101	TR1	23/1ex48	RS15 only	4.00
764-1102	TR2	23/4x48	RS8-11-12-14-16	4.63



SOCKETS FOR KH SERIES

For KHP, KHS and KHU Series relays. 9KH1, 4PDT solder terminal socket; 9KH2, 4PDT printed circuit socket; 9KH5, 4PDT screw terminal socket.

Stock	Mfr's	Mfr's Socket		EACH				
No.	Туре	Term.	1-9	10-24	25-49	50-Up		
886-1410 886-1411 886-1404	9KH1 9KH2 9KH5	Solder P.C. Screw	1.15 1.15 7.23	.92 .92 5.78	.67 .67 4.99	.63 .63 4.73		
R86-1412 KHP Hold-Down Spring 1 oz Fach 17								



FOR SERIES KNP RELAYS

SPDT/DPDT/3PDT solder terminal sockets or SPDT/DPDT/3PDT printed circuit terminal sockets.

Stock	Mfr's	Socket	EACH					
No.	Type	Term.	1-9	10-24	25-49	50-Up		
886-1413	9KN1	Solder	1.22	.98	.70	. 67		
886-1414	9KN2	P.C.	1.22	.98	.70	. 67		
886-1415	9KN3 H	9KN3 Hold-Down SpringEach .1						

FOR SERIES R10 RELAYS



Type 9XR10-1, 2PDT socket, spring ground; Type 9XR10-2, 4PDT socket, spring ground; Type 9XR10-3, 6PDT socket, spring ground. Contact your nearest Allied Electronics facility for larger quantity pricing.

Stock	Mfr's		EACH			
No.	Туре	Description	1-	10- 24	25- 49	50- Up
886-1430 886-1431 886-1432	9XR10-2	Socket, Spring Gnd. Socket, Spring Gnd. Socket, Spring Gnd.	1.22	.77 .70 1.26	.58 .67 .91	.55 .68 .86

FOR 1220 AND 1225 RELAYS



TYPE 1220-51 PHENOLIC RELAY SOCKETS. For use with Types 1220 and 1225 series relays. May be used with solder lug, plug-in or AMP Fasten 110 terminals. Wt. 802-0299. 1-9 Each 1.35 10-24.. Ea. 1.08 25-Up.. Ea. .67

D 442 C

SOCKETS FOR KCP, KRP, KRP-N, KAP, PW, SM Amphenol Barrier Type Sockets. For KAP, KCP, KRP, and KRP-N relays. For SP and DP types, order octal 713-5003. For 3-pole, order 11-pin 713-5017.

Amphenol Standard Sockets. For KAP, KCP, KRP, KRP-N. For SP and DP relays, order octal 713-2810. For 3-pole relays, order 11-pin 713-2815.

59 SERIES SOCKET

A For use with the 4PDT miniature relays. Current rating: 5 amps. Voltage rating: 250 volts. Contacts: cadmium-plated brass. Dielectric: black phenolic. Has solder eyelet contact termination; spring steel mnt. clip.

713-1901. Type 59-133. 1-24...98 25-49....72 50-Up .53

RELAY SOCKETS

B TYPE 146-817. 11-contact melamine socket for most 11-pin relays. Replaceable contacts on 34" terms (screw-type) rated 10 A @ 600 V rms. Two .156" mnt. holes, 376" ctrs. Four tie points. 1 lb. 713-5017. 1-24. Each 4.11 25-49 Each 3.85 50-99 Each 3.26 100-Up Each 2.89 25-49 Each 3.85 100-Up Each 2.89

BARRIER-TYPE SOCKETS

Barrier-type octal relay sockets have max. EIA working voltage of 2000 DC. Bronze cloverleaf contacts—each rated 8 A. Inter-electrode cap., 2.6 pF 8 screw terminals. Top mnt., except *bottom mnt. †4 molded-in threaded insert for tie points. %4x11%6x2%".

Stock No.	Mfr's	EACH					
	Type	1-24	25-49	50-99	100-Up		
713-5003 713-5004 713-5011 713-5012	146-103 146-104† 146-293° 146-204°†	1.93 2.48 1.92 2.75	1.79 2.22 1.54 2.22	1.58 1.86 .97 1.86	1.38 1.67 .83 1.67		

11-CONTACT RELAY SOCKET

TYPE 2811. Above-chassis mount. Diallyl phthalate base, socket. Beryllium copper contacts rated 600 volts rms at 10 amps. Size, 2x2x.85". Shpg. wt. 5 oz. 885-0605. 1-9. Each 5.30 10-24 Each 2.95 25-49 Each 2.66 50-Up Each 2.54



RELAY SOCKET

TYPE 27390. Twelve terminal socket accepts types 211, 219, 235, 236, 237, 255, 349, and RSX alarm relays. Overall dimensions, 2¹³/₂₂ x 2³/₂₆ x ¹³/₂₂". 929-2030 Each 5.60



14-PIN SOCKET FOR 4PDT AND 6-POLE

TYPE 33377. Accepts all frame 219
4PDT and 6-pole model relays. Overall dimensions, 31/32 x 21/16 x 21/32". 929-2050

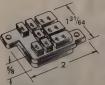
RELAY ACCESSORIES AND SOCKETS



8-Pin "P" Case. Type 35D070. Clear plastic; octal base. For mounting rectifiers, capacitors. 4 screws. 2 x 111/32 x 111/32". 886-1460. Wt. 1 oz. 1-24...... Each 1.33 25-49... Each 1.06 50-Up.... Each .68

 11-Pin "P" Case. Type 35D072.

KCP-KRP Hold-Down Spring. Two 1/21" holds. 886-1416. Type 9KR15. Wt. 3 oz......................Each .20



ALLIED® SOCKETS
Wide variety of sockets to match
every type of Allied relay. Terminations include PC, quick-disconnect, solder. Contact Allied for
higher quantity pricing.

Stock No.	Termination	EACH
654-0901	Printed Circuit	1.80
854-0902	.187" Quick-Disconnect	1.80
654-0903	Pierced Solder Terminals	1.80

Contact Your Nearest Allied Office for Fast Service

SOLID STATE TIME DELAY RELAYS





Designed for all variable on-delay timing requirements. Silicon semiconductors and tantalum capacitor for high accuracy and stability. Time ranges: 0.05 to 500 seconds. ±1% repeatability. Dial accuracy, 5% of nominal setting. Recycle time, 50 msec. 0° to 130°F ambient. Maximum power consumption, 4½ watts. Protected against voltage transients and polarity changes. See charts below for action. 115 VAC except (†) 24 VDC. Av. wt. 14 oz.

SURFACE MOUNT TIMERS

Series SS15 On Delay. Series SS16 Off Delay. Housed in steel surface mount case. Terminals on top for easy wiring. Output switching: DPDT, 10 amps. 115 VAC except (†) 24 VDC. Locking type adjustment bushing with slot for remote time adjustment pot. 3%x3%x3%/s.

	Mfr's		Mfr's		EA	CH
Stock No.	Type SS15-	Stock No.	Type SS16-	Range (Secs.)	1- 24	25- Up
818-1255	222-B	818-1271 818-1279	822-B 823-B†	.055	46.10 46.10	43.70 43.70
818-1257 818-1265	222-C 223-C	818-1273 818-1281	822-C 823-C†	.5-5 .5-5	46.10 46.10	43.70 43.79
818-1259 818-1287	222-D 223-D†			5-50 5-50	46.10 46.10	43.70 43.70
818-1261 818-1269	222-E 223-E†			50-500 50-500	48.10 48.10	45.60 45.60

- Wide Selection of Ranges for On or Off-Delay
- Unusually Wide
 Time Ranges: 0.05
 to 500 Seconds

ACTION 2 - (ON-DELAY) TIMING CHAPT CONTROL POINTS OUTPUT SINIEMEG	ACTION 5 - (INTERVAL) TIMING CHART	ACTION 4 TOTALIZER / PRE SET COUNTER) TIMING CHART CONTRIDUOS CONTROL SWITE CONTROL SWITE OUTP SWITE OUTP SWITE
ACTION 3 — ("JAM-UP" CONTROL) TIMING CHART CONTROL POPULE CONTROL SWITCH GOTPUT SWITCHING	ACTION 6 (OFF DELAY) TIMING CHART CONTINUOUS CONTROL SMITH SMIT	ACTION 7 MOMENTARY ACTUATION THINING CHART CONTROL SWITCH CONTROL SWITCH CONTROL TIME
TIMERS	LOW-COST TIME	27

PLUG-IN TIMERS

Achieve ±2% accuracy to insure repeatability and proper operation of timed mechanism. Input: 115 VAC, except †24 VDC. Output switching: DPDT, 10 amps. Size, 4¼x2x2". SS-10 and SS-11 are 11 Pin Plug-In. Action, see chart above.

SERIES SS10

Stock		Range		EACH		
No.	Type	secs.	Mtg.	1-24	25-Up	
818-1200 818-1216 818-1204 818-1220 818-1208	SS10222B SS10223B† SS10222C SS10223C† SS10222D	.05-5 .05-5 .5-5 .5-5 5-50	Plug-In Plug-In Plug-In Plug-In Plug-In	46.10 46.10 46.10 46.10 46.10	43.70 43.70 43.70 43.70 43.70	

SERIES SS11

818-1225	SS11822B	.055	Plug-In	46.10	43.70
818-1241	SS11823B†	.055	Plug-In	46.10	43.70
818-1229	SS11822C	.5-5	Plug-In	46.10	43.70
818-1244	SS11823C†	.5-5	Plug-In	46.10	43.70
818-1233	SS11822D	5-50	Plug-In	46.10	43.70
818-1237	SS11822E	50-500	Plug-In	48.10	45.60

DELAY RELAYS

- Choice of Types for On-Delay or Off-Delay
- Compact Packages to Fit Standard Octal Socket



Repeatability accuracy is ±5%. Fully protected against voltage transients and polarity changes. Input: 120 volts AC, except †24 volts AC. Output switching: SPDT, 3 amperes. Series SS-6, on-delay; series SS-8, off-delay.

			EACH					
Stock No.	Type SS-	Range (Secs.)	1- 9	10- 24	25- 49	50- Up		
818-1115 818-1121 818-1117 818-1123	6268-II† 6262-JJ	1-15 1-15 1-60 1-60	10.85 10.85 10.85 10.85	9.95 9.95 9.95 9.95	9.49 9.49 9.49 9.49	8.98 8.98 8.98 8.98		
818-1135 818-1141 818-1137 818-1143	8568-II† 8562-JJ	1-15 1-15 1-60 1-60	12.75 12.75 12.75 12.75	11.95 11.95 11.95 11.95	11.35 11.35 11.35 11.35	10.75 10.75 10.75 10.75		

SERIES 40 TIME DELAY RELAYS

AC relays. Accuracy, 10%. Repeatability, 2%. Recycle time, 100 ms. Transient protection, 2 times rated voltage for 8 msec. Plug-in mounting. Dust covered. Size: $2\% \times 1\% \times 1\%$. Average shipping weight 11 oz.

MODEL 42 OFF DELAY. DPDT 10-amp contacts transfer after a pre-set time, upon the opening of a SPST external pilot switch.

MODEL 43 MONITOR. DPDT 10-amp contacts transfer after a preset time. During preset timing range, time cycle can return to zero by an external SPST contact closure.

MODEL 44 REPEAT CYCLE, SPDT 10-amp contact; 12-pin plug-in; adjustable on/off delay. Use socket 929-2030.

MODEL 45 ON DELAY, DPDT 10-amp contacts transfer after a preset time. Reset by removal of input power.

How to Order: In place of X in Stock Number, use (1) for 24 VAC, (2) for 115 VAC.



Model 44

Models 42, 43, 45







PRECISE SET-POINT RELAYS

AC NULL SENSING RELAYS

Sensitive AC operated devices for servo/differential control. The 10 watt reed switch output contacts respond to phase reversals of input signal. The internal power supply, continuously energized by the primary 120 VAC power, produces a reference voltage. An unbalance

in the signal system produces an AC voltage which is compared with the reference voltage. The phase relationship between the signal and the reference voltage determines which of the output switches will close. At "null" the system output is at zero voltage, switches open.

Stock No.			Min.	Max.	Operational	Drop-in	PRICE EACH	
	Mfr's Type		Pull-in Signal	Signal Overvoltage	Voltage Range Ratio	Drop-out Differential	1- 9	10- Up
929-1434 929-1435	14 15	200K 20K	500 MV 5 MV	150 Volts 10 Volts	100:1 2,000:1	10% 10%	27.43 39.86	26.40 38.50

PRECISE SET-POINT RELAYS

Sensitive monitoring relays provide a precise set-point control for over or under voltage/current level sensing. Model 12 provides on-off control, All units require an

8VAC primary power supply and respond to a DC signal of 1 volt and/or 1 mA. Output contacts are 10 watt reed switches, N.O.

CONTACT POSITION

Model		ower Applied ove Setpoint			bove Setpoint		Primary Power	
12B	(Open			Open		Open	
			20/-1-1-4		Price E	ACH		
Stock No.	Stock No. Type Descripti	Description	n Weight	1-9	10-24	25-99	50-Up	
929-1432	12B	Undervoltage or	n/off 3 oz.	22.58	21.80	20.20	19.62	

Contact Your Nearest Allied Electronics Office for Fast Service

		Innut	Time		EACH				
Stock No.	Mfr's Type		Range, Sec.	1-	25- 49	50- 99	100- Up		
755-4730	TS012AB015 TS024AB015 TS115AB015	12 24 115	0-15	36.00	28.40 28.40 28.40	21.00	18.00		
755-4735	TS012AB060 TS024AB060 TS115AB060	24	0-60	31.70	27.00 27.00 28.00	23.65	20.25		

TS SERIES TIME DELAY RELAYS

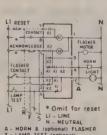
Solid-state circuit relays with ±1% repeatability. Dust proof polycarbonate case, octal plug. Infinite knob adjustment; DPDT 10A contact. AC/DC input; delay on energize. Reset: 25 ms typical. Operating Temp.: —40° to +85°C. 1%x21\(^2\)₃₂x21\(^3\)₆". Wt. 6 oz.



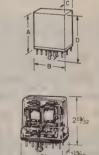
Stock	Mfr's	Delay	Action	EAC	H
No.	Type	Secs.		1-9	10-Up
929-144X	42	.1-10	DPDT	26.82	25.90
929-145X	42	.6-60	DPDT	26.82	25.90
929-146X	42	1.8-180	DPDT	26.82	25.90
929-147X	43	.1-10	DPDT	33.65	32.50
929-148X	43	.6-60	DPDT	33.65	32.50
929-149X	43	1.8-180	DPDT	33.65	32.80
929-150X	44	.1-10	SPDT	67.82	65.50
929-151X	44	.6-60	SPDT	67.82	65.50
929-152X	44	1.8-180	SPDT	67.82	65.50
959-153X	45	.1-10	DPDT	22.26	21.50
929-154X	45	.6-60	DPDT	22.26	21.50
929-155X	45	1.8-180	DPDT	22.26	21.50

ALARM RELAYS

- Operates Alarm and Lights
- Manual or Automatic Shut-off



A - MORH & (optional) FLASHER
T - LAMP TEST (optional)
R - RESET (optional)
S - HORN SILENCE (ACKNOWLEDGE)
F - FLASHER (optional)



Condition	K1	K2	Flasher	Horn	Light
Normal	off	on	off	off	off
Alarm	on	on	on	on	Flash
Acknowledge	on	off	off	off	on
Trouble Contact Reopens without reset with reset	off on	on off	off off	off off	off on
Reset	off	on	off	off	off
Lamp Test	off	on	off	off	on

Time Delay Relays; Sensor Devices

UNIVERSAL TIME DELAY MODULES



Tapered Base with PC Mounting



Standard Octal Plug-In

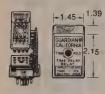
Flexibility in selection of relays, delays, coil voltages. Accepts Manufacturer's Series Relays 240, 640, 1220, 2100. Tapered base accepts relays directly for PC mitg.; standard octal base mounts in octal socket, with relay wired in conventional manner. Acts as relay driver, use with ext. term. adjustment with resistor for desired time delay. In Mfr's Type No. -O Indicates On-Attract; -R indicates On-Release. 2½ oz.

TAPERED BASE FOR PC MOUNTING

	Mfr's	Time	14.00	EACH		
Stock No.	Type IR-	Range Sec.	Volts	1- 9	10- 24	25- Up
802-0102 802-0114	TMT-0-100 TMT-R-100	.5-100 .5-100	24 DC 24 DC	14.95 20.11	12.78 17.20	11.50 15.48

STANDARD OCTAL BASE

802-0073 TMP-0-100 .5-100 115 AC 16.65 14.24 12.82



BDT TIME DELAYS

Repeatability at nominal temp, and voltage is 2% with temp, stability, Replaceable electro-mechanical relay. 120 VAC or 24 VDC with time ranges of 1 to 10 secs. or 10 to 60 secs. with screw type adjust, pot. Term. is std. (8-pin) octal plug with temp, range of 0°C to +55°C. Oper, is On-Attract. Output rated 5 A DPDT. 1.45x1.39x 2.15", 3 oz.

Stock	Mfr's Type		Volts	EACH				
Ottock	Type IR-BDT-	(in sec.)		1-9	10-24	25-49	50-Up	
802-0035 802-0036	0-10 0-60		120 VAC 24 VDC	22.34	19.11	17.20 17.20	16.24	



SERIES CH AND CD TIME-DELAY DEVICES AND RELAYS





CH/CD38

Solid-state devices. Reset within milliseconds. Adjustable over entire time range. Plastic enclosures. Series CH: temp., -10° C to $+55^{\circ}$ C, acc., $\pm 10\%$; reset, 100 msec; repeatability, $\pm 2\%$. Series CD: temp., -40° C to $+55^{\circ}$ C; acc., $\pm 5\%$; reset, 60 msec; repeatability, $\pm 1\%$. CHB/CDB38 and CHD/CDD38 have internal DPDT 10-amp relay. Others are timer only: use with other relays; ${}^{\circ}$ KRP11AG or KRP14AG. CDB38-70012, CDD-38-30012, CHB38-70011, CHB38-70013, and CHD38-30011 provide delay on release, others delay on operate. Wts.: CD21, 5 oz.; CD38, 9 oz.; CD45, 7 oz.; CH38, 5 oz.

Stock	Mfr's	input	Delay		EACH	
No.	Туре	Volts	Sec.	1-9	10-24	25-Up
886-0080	CHB38-30001	24 AC	1.0-10	27.87	22.25	21.14
886-0090	CHB38-70001	120 AC	1.0-10	27.87	22.25	21.14
886-0091	CHB38-70003	120 AC	1.0-180	27.87	22.25	21.14
886-0085	CHD38-30001	24 DC	1.0-10	26.49	21.15	20.09
886-0086	CHD38-30003	24 DC	1.0-180	26.49	21.15	20.09
886-0082	CHB38-70011	120 AC	1.0-10	33.45	26.70	25.37
886-0083	CHB38-70013	120 AC	1.0-180	33.45	26.70	25.37
886-0053 886-0054	CHD38-30011 CDB38-70003 CDB38-70004	24 DC 120AC 120 AC	1.0-10 0.1-10 0.6-60	30.69 61.76 61.76	24.50 49.30 49.30	23.28 46.84 46.84
886-0055	CDB38-70005	120 AC	1.8-180	61.76	49.30	46.84
886-0069	CDD38-30003	24 DC	0.1-10	58.62	46.80	44.46
886-0070	CDD38-30004	24 DC	0.6-60	58.62	46.80	44.46
886-0051	CDB21-70003*	120 AC	0.1-10	54.61	43.60	41.42
886-0050	CDB21-70001*	120 AC	1.8-180	54.61	43.60	41.42
886-0057	CDB38-70012	120 AC	0.6-60	73.83	58.95	56.00
886-0072	CDD38-30012	24 DC	0.6-60	69.71	55.65	52.87

MET SERIES TIME DELAY



Offers dependable 1% repeatability. Choice of two timing ranges: 0.5 to 100 seconds or 100 to 300 seconds. Single-turn potentiometer for convenient adjustment. Available in 24 VAC, 120 VAC or 24 VDC devices. Accuracy normally ±10% of setting over temperature range and voltage. Contacts 10 amperes resistive, 115 VAC. Standard octal plug. In part numbers, 0 indicates delay on operate; R, delay on release. Size, 1.90 x 2.40 x 2.90". Shpg. wt. 4 oz.

Stock	Mfr's Type	Time Range	Volts	EACH				
No.	MET-	(in sec.)		1-9	10-24	25-49	50-Up	
802-0478	0-100	100-300	24 VAC	25.58	21.88	19.69	18.60	
802-0474		.5-100	120 VAC	23.56	20.15	18.14	17.10	
802-0472		.5-100	24 VDC	24.10	20.62	18.56	17.53	
802-0486		.5-100	24 VAC	35.12	30.04	27.04	25.53	
802-0490		.5-100	120 VAC	34.15	29.21	26.24	24.83	

10 AMP 3PDT SOLID-STATE TIME DELAY RELAYS



Can solve problems of operation control, recycling, safety delays, programmed sequences. Welded 3PDT encapsulated timing module handles 10 A resistive load. Has 15-turn pot with accuracy of ±5% over combined voltage and temperature range (-40°F, 150°F), for setting and resetting. Recycle time is 50 milliseconds; repeatability, ±1%. DC units are polarity protected. Faston 110 mounting. Chart Included shows No, turns for required delay. Size, 3x1.678x1.391". Shpg. wt. 5 oz.

Stock	Mfr's	Coil Delay EACH				
No.	Туре	Volts	Sec.	1-9	10-24	25-Up
802-0621		115 VAC	1-15	38.28	32.74	29.47
802-0615	TD-33C15	24 DC	1-15	29.70	25.41	22.87



CU SERIES FIXED AND ADJUSTABLE TIME DELAY RELAYS

where fast reset time and excellent repeatability are required. Designed for delay-on-operate use, with fixed timing tolerance of ±5% and resistor adjustable tolerance of ±10%. Ideal for vending equipment, machine tool control or process controls. Each unit contains internally-mounted 10-amp DPDT relay. Type CU-41 uses KUP series socket, Type CU-42 enclosures have flanged cases for mounting directly to chassis. Units with adjustable time delay require external resistor for operation.* Resistances indicated in table below are for maximum delay time. Yellow Lexan case. Av. shpg. wt. 4½ oz.

FIXED DELAY TYPES

No. Type (S	Mfr's	Delay	Input	EACH			
	(Sec.)	Volts	1-9	10-24	25-Up		
886-0125	CUA41-70010	10	120 AC	19.86	15.85	15.06	
886-0134	CUC41-30120	120	24 DC	22.04	17.60	16.72	
886-0129	CUA42-70010	10	120 AC	19.86	15.85	15.06	
886-0130	CUA42-70120	120	120 AC	22.04	17.60	16.72	

RESISTOR-ADJUSTABLE DELAY TYPES (LESS RESISTOR)

Stock	Mfr's	Delay	Volts	Res.*		EACH	
No.	Туре	(Sec.)	1 5°	(Ohms)	1-9	10-24	25-Up
886-0148 886-0149 886-0157 886-0158	CUF41-70010 CUF41-70120 CUH41-30010 CUH41-30120	1-10 1-120 1-10 1-120	120 AC 120 AC 24 DC 24 DC	200k 2.4 meg 160k 2 meg	20.98 22.80 20.98 22.80	18.20 16.75	15.91 17.29 15.91 17.29
886-0153 886-0154 886-0162	CUF42-70010 CUF42-70120 CUH42-30120	1-10 1-120 1-120	120 AC 120 AC 24 DC		20.98 22.80 22.80	18.20	15.91 17.29 17.29

CS SERIES SOLID-STATE VOLTAGE SENSORS



Series 30010, 70010 offer adj. pick-up, drop-out voltages. *Series 71010 have fixed pick-up, adjustable drop-out voltages. Drain: 3 mA(max.); after sensing. 30 mA. DC polarity protection. 2 Form C(DPDT) contacts: 3 A @ 28 VDC resis.; 120 VAC resis. Ambient,—40° to +55°C. 2'%x1'4x2'4". AC types—50/60 Hz. Octal plug, cover. 10 oz.

Stock	Type	Type Pick-Up Drop-Out				EACH			
No.	ĊS	Range	Range		1-9	10-24	25-Up		
	J38-70010 L38 30010			AC DC	46.03 36.57	36.75 29.20	34.91 27.74		

DPDT 5 AMP TIME DELAY RELAY



Operates from 115 VAC ±10% 50-60 Hz, Recycle time, 100 msec.; repeatability, 5% of nominal setting; accuracy, 10% of nominal setting; 10-tum pot additional setting; 10-tum pot additional setting; 10-tum pot accuracy, 10% of nominal s



DEVICES



Fast-acting voltage, frequency and phase rotation sensors. Accurate repeat cycle similar to solid-state input sensors combine with 3PDT, 10 A (resistive, 115 VAC) relay output. Accepts PC, chassis-mount, clip socket. 0° to +50°C. Trans. prot.: 600 V, 3-phase; 250 V, others. Electrical latch or unlatch by wiring 24 VDC or 115 VAC enclosed relays.

3-Phase, 4-Wire Voltage Sensing Device. Unit detects from 3-phase source of 95 VAC, or if there is loss or drop in line averaging 50 VAC, Protects 3-phase motors and systems. 115 VAC, 60 Hz. 5 oz. 802-0135. Type IR-AV2-6111. Each 44.26

Over-Voltage Sensing Device. Output relay energizes as input voltages rises to adjust sensepoint. De-energizes as input voltage drops to approx. 2.5V below sensepoint. 400 Hz; adj. range, 90-130 VAC. 115 VAC, 60 Hz. 5 oz. 802-0140. Type IR-VSI-610.... Each 55.31

Under-Voltage Sensing Device. Output re-lay energizes at low-voltage pull-in point. Independent of control circuit. Energized until voltages rise to adj. sense-point of 90-130 VAC. 115 VAC, 60 Hz. 5 oz. 802-0145. Type IR-VS2-610....Each 55.28

Frequency Sensor Adjustable Sense-Point Device. Under or over-frequency detector. Output relay energizes as freq. rises. to sense-point, de-energizes when frequency drops to approx. 1.5% of sense-point. Adj. Range: 45-66 Hz. 15 VAC, 60 Hz. 5 oz. 802-0137. Type IR-FS1-610....Each 71.14

VOLTAGE LEVEL DETECTORS





Adjust the sense level over a range of 85 to 135 VAC, 50 to 60 Hz, which allows functioning as an under or over-level detector. Once fixed, the sense point is extremely stable despite variations in temp; repeatability is to within 1%. Input voltage is 120VAC. —10° to 55°C. Flat pack* or octal plug† term. LDT: 2x2x.64". LDP: 1.5x1.5x1". Shpg. wt. 2½ oz.

Stock	Mfr's	Volts	EACH				
No.	Туре	AOIEZ	1-9	10-24	25-Up		
802-0419	*LDT-100 †LDP-100	120 AC	19.07	16.32	14.69		
802-0409	†LDP-100	120 AC	23.06	19.73	17.76		

CUB51 TIME-DELAY RELAYS



CUB51 TIME-DELAY RELAYS

Knob-adjustable delay-onoperate time delay relays.
DPDT contacts 10 A at 28
VDC resis., or 120 V, 60
Hz AC. 80% power factor.
Cal. dial. Tol.: adjust,
±3%. Reset: 150 msec. Transient protection of twice
rated input voltage for up
to 8 msec. Polarity protected. Operate room temp. Timing Intervals adjust. over timing ranges 1 to 10
secs. or 1 to 120 secs. 1.53x1.406x2.78"
(including knob). 120 VAC. 3½ oz.

Stock	Туре	Time Delay		EACH		
	CUB51-	Seconds	1-9	10-24	25-Up	
886-0131 886-0132	70010 70120	1-10 1-120	22.80 24.98	18.20 19.95	17.29 18.95	

220 • ALLIED

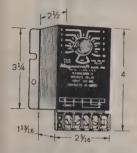
Solid State Time Delay Relays

TIME DELAY RELAY FUNCTIONS

Slow Operation (On Delay)-Upon application of control power, time delay period begins. At end of time delay, output switch operates. When conpower is removed, output switch returns to normal

Slow Release (Off Delay)—Upon closure of the control switch, output switch operates. Upon opening of control switch, time period begins. However, any control switch closures prior to the end of the time period will immediately recycle the timer. At the end of the time period, output switch returns to normal.

PANEL MOUNTED TIME DELAY RELAYS-±2% REPEATABILITY



SOLID STATE (HYBRID)

MODEL 218. Low-cost relays with $\pm 2\%$ repeatability under fixed conditions, 25°C or $120^{\circ}\text{VAC}-\pm 10\%$ over voltage and temperature extremes. Contacts are SPDT and rated 10 amp. Calibrated dial accurate to $\pm 10\%$ of full scale. Delay on operate mode. Reset and recycle time, 100 ms. Meets demands of National Electrical Code users in a panel mounted package. Ideal for Industrial timing applications.

SPDT-SCREW TERMINALS

Stock	Mfr's Type	Input	Timing Range		EACH	
No.	218	Volts	Sec.	1-9	10-24	25-Up
850-1511	WACSOSX-2 WACSOSX-4 WACSOSX-5	120 VAC	1 to 180	25.68	20.54 20.54 20.54	18.45

SOLID STATE (HYBRID)-1% REPEATABILITY

MODEL 213CP. Precision time de-lay relay providing DPDT 10-amp output switching. Available for AC operation. Utilizes precise com-ponents for close tolerance with ±1% repeatability and immunity to false operation. Three adjust-able timing ranges in slow oper-ate or slow release relays. Tran-sient protection against 1000 V. sient protection against 1000 V.
Octal plug-in enclos. Calibrated
dial. Fast reset time. 10 oz.



SLOW OPERATE RELAYS (ON DELAY)

Stock	Mfr's Type	Input	Timing Range		EACH	
No.	W213-	Volts	Sec.	1-9	10-24	25-Up
850-1504 850-1505 850-1506	ACPSOX-7 ACPSOX-9 ACPSOX-10	120 VAC	1 to 180	51.00	40.80 40.80 40.80	34.66

SLOW RELEASE RELAYS (OFF DELAY)

850-1508	ACPSRX-4 ACPSRX-6	120 VAC	1 to 180	62.61	50.09	44.98
850-1509	ACPSRX-7	120 VAC	2 to 300	62.61	50.09	44.98

SOLID STATE RELAY-5% REPEATABILITY

SULID SIAIE RELAY—5% If MODEL 211CP, Electromechanical relay provides DPDT 10A switching. Timing repeatability, ±5% of setting at nominal voltage @ 25°C. Reset time, 100 ms, typ. Three adjustable timing ranges. Protected from voltage translents to twice the nom. input V for up to 8 ms. Oper. temp., —10° to +55°C. Shpg. wt. 10 oz.



OPERATE DELAY TYPES (8-pin socket mounting)

Stock	Mfr's Type	Input	Timing Range		EACH	
No.	W211-	Volts	Sec.	1-9	10-24	25-Up
850-1850	ACPSOX-5	120 AC	1 to 10	26.24	20.99	18.85
850-1852	ACPSOX-7	120 AC	1 to 180	26.24	20.99	
850-1853	ACPSOX-8	120 AC	2 to 300	26.24	20.99	
850-1879	CPSOX-1	24 DC	1 to 10	26.24	20.99	18.85
850-1881	CPSOX-3	24 DC	1 to 180		20.99	18.85
850-1882	CPSOX-4	42 DC	2 to 300		20.99	18.85

RELEASE DELAY TYPES (11-pin socket mounting)

850-1867 850-1868	ACPSRX-5 ACPSRX-7 ACPSRX-8	120 AC 120 AC	1 to 180 2 to 300	31.50 31.50	25.20 25.20	22.63 22.63
850-1892	CPSRX-3	24 DC	1 to 180	31.50	25.20	22.63

PRINTED CIRCUIT TIME DELAY RELAYS

	Stock	Mfr's	DC Volts	Timing	EACH					
	No.	Type	±15%	Range	1-9	10-24	25-49	50-Up		
CLASS 502PCSO SPST-NO (Form A) SLOW OPERATE RELAYS	850-2002 850-2004	W502PCSOX-3 W502PCSOX-5	24 12	100 msec. to 100 sec. 3 sec5 min.	24.33 27.34	19.46 21.87	17.92 20.13	15.93 17.90		
CLASS 502PCSR SPST-NO (Form A SLOW RELEASE RELAYS	850-2026 850-2028	W502PCSRX-3 W502PCSRX-5	24 12	200 msec. to 100 sec. 1 sec5 min.	34.31 38.92	27.45 30.63	25.26 28.20	22.46 25.06		
CLASS 503-PCSO SPDT (Form C) SLOW OPERATE RELAYS	850-2055	W503PCSOX-6	24	3 sec5 min.	28.64	22.91	21.09	18.74		
CLASS 503PCSR SPDT (Form C) SLOW RELEASE RELAYS	850-2075 850-2078	W503PCSRX-2 W503PCSRX-5	12 12	200 msec100 sec. 1 sec5 min.	36.68 40.70	29.34 32.56	27.02 29.96	24.02 26.63		

SOLID-STATE AC RELAYS

SERIES 723. 6-AMP STANDARD SOLID-STATE RELAY

Stock	Mfr's	Current		Contact	input	Control	Size, Inches		EA	СН	
No.	Туре	Amps	Volts	Form	Volts	Cur.,µA	W. x D. x H.	1-9	10-24	25-49	50-Up
807-3001 807-3003	11-100 11-300	6	120 120	1A 1A	6VDC 24VDC	28 8.5	2.61x1.5x1.463 2.61x1.5x1.463	12.85 12.85	10.28 10.28	8.50 8.50	8.00 8.00

SERIES 723. 6-AMP. ZERO-VOLTAGE SWITCHING SOLID-STATE RELAY

807-3012	21-300	6	120	1A	12VDC	17	2.60x1.50x1.50	30.72	24.58	20.70	19.60

SERIES 701. 1.5-AMP, PCB SOLID-STATE RELAY

							28 4 28 4					5.35 5.90 6.85 7.50
--	--	--	--	--	--	--	--------------------	--	--	--	--	------------------------------

	SERIES 765. SAMP OCIAL DASE SOLID-STATE RELAT.										
807-3031	11-100	5	120	1A	6VDC	40	1.37x1.37x2.75	13.77	11.02	9.00	8.45
807-3033	11-500	5	120	1A	2.5VDC	4	1.37x1.37x2.75	15.19	12.15	9.90	9.30
807-3034	11-120	2.5	120	·1D	6VDC	40	1.37x1.37x2.75	15.19	12.15	9.90	9.30
807-3036	11-320	2.5	120	1D	24VDC	10	1.37x1.37x2.75	15.19	12.15	9.90	9.30
807-3039	11-330	2.5	120	2A	24VDC	15	1.37x1.37x2.75	16.70	13.36	10.80	10.20

SOLID STATE AC RELAY

- Photo Isolated Input Circuit
- Isolated Input and Isolated **Output Switching Circuits**
- Triac Load Circuits
- Continuously Gated Outputs
- Separate Transformer Coupled Triacs
- Four Poles—2 N.O. & 2 N.C. or 4 N.O. Poles



TYPE 96 FOUR POLE RELAY. General purpose, all solid state relay. Offers nearly unlimited life when driving solenoid operated valves on machine tools, molding machines and similar applications. Available in two normally open and two normally closed poles or four normally closed poles. Type 96BXB (2 N.O., 2 N.C. contacts) wired for general purpose switching; 96DXX (4 N.O. contacts) wired as a latching contact. Contact Rating: 1 amp contin., 25 amp inrush. Control Voltage: 120 VAC. Ambient Temperature: —10 to +70°C. 1500 V diel. bkdn. Use Type 27390 socket, p. 230. Wt., 10 oz. 929-9601. Type 96BXB. 2 N.O., 2 N.C. Contacts. Ea. 54.36 929-9602. Type 96DXX. 4 N.O. Contacts. Ea. 54.36

TIMING RELAY-2% REPEATABILITY

MODEL 211M. Combine solid state timing function circuit with relay for 10 amp DPDT output switching. Space-saving surface mounting. Transient and polarity protection. Reset time, 100 ms. Contacts, 10 A @ 28 VDC or 115 VAC. Calibrated dial. Four adjustable timing ranges. Operate or release delay. Screv type terminals. Shpg. wt. 10 oz.



OPERATE DELAY TYPES

Stock	Mfr's Type	Input	Timing Range		EACH	
No.	W211-	Volts	Sec.	1-9	10-24	25-Up
850-1902	MASOX-2	120 AC	1.0-10	34.55	27.64	25.42
850-1903	MASOX-3	120 AC	1.0-180	34.55		25.42
850-1904	MASOX-4	120 AC	2.0-300	34.55		25.42
850-1912	MSOX-2	24 DC	1.0-10	34.55		25.42
850-1913	MSOX-3	24 DC	1.0-180	34.55		25.42

RELEASE DELAY TYPES

850-1907 850-1908	MASRX-2 MASRX-3	120 AC 120 AC	1.0-10	40.43	32.34	29.77 29.77

Combine rugged mono-



Combine rugged monolithic silicon structure with dry reed relay for isolated circuit switching. 2 fully adjust timing ranges using remote pot or fixed resistor. Low profile PC pkg. SPST-NO (Form A) rated 1 amp, 15 VA or 250 VAC max. resis. SPDT (Form C) rated 0.5 amp, 10 VA or 250 VAC max. resis. SPST-NO 10 Sec using 60K ohm/sec exter. resis., 3 sec to 5 min. @ 10K/sec, ±10% over voltage or temp. range. Polarity protect. Reset less than 100 msec. CLASS 502PCSR AND 503PCSR. Time delay on release, adjust. 200 msec to 100 sec using 25K ohm/sec resis. or 1 sec to 5 min @ 6.5K/sec. Repeat., ±2% at nom. voltage at 25°C, ±4@ over voltage and temp. range. Temp., -10° to +55°C. 25°C, ±4

Designed for extreme reliability and dependability. All these solid-state relays are humidity resistant and will withstand any environment. They all have excellent shock and vibration immunity, long life, no contact to bounce or wear and will switch resistive and inductive loads. Inrush Capability: Will withstand 80 amps, 1 cycle inrush currents. Operate Time: 1 millisecond typical. Release Time: No longer than 1/2 cycle. Operating Temperature: Up to 25°C without addition heat sink. Life: More than 100 million operations.



Hecon	22
ITT	22
Radio Shack	
Delay, Interval and Cycle Timers	
Cramer	22
General Time22	22, 224, 22
Industrial Timer	224, 225
Intermatic	22
Elapsed Time Indicators	
Cramer	22

General Time	
Industrial Timer	 228
Stopwatches	
Radio Shack	 223
Time Switches	
Mark Time	 223
Radio Shack	 223
24-Hour Multi-Purpose T	
Intermatic	 223
Radio Shack	

GENERAL INFORMATION ON SOLID-STATE TIMERS

TYPICAL APPLICATIONS

Motor Starting Circuits • Machine Tool Sequencing • Container Filling Control • Alarm Circuits • Injection Molding • Data Process Operations • Vending Machines • Elevator Controls • Brewing Processes • Heat Sealing • Warm Up/Turn Off Delay • X-Ray Machines • Conveyor Control • Induction Heating Welding Timing Control • Photographic Control.

DELAY



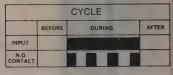
Input voltage is applied to terminals. Time delay begins. At the end of predetermined timing period, contacts transfer and remain so. When input voltage is removed, contacts return to initial condition; circuit resets.

INTERVAL TIME



Input voltage is applied to terminals. Contacts transfer instantly and timing begins. At the end of timing period, contacts transfer to initial condition. Circuit resets with removal of input voltage.

ON/OFF CYCLE



Input voltage is applied to terminals. "ON" time period begins. At the completion of first time setting, output contacts open and setting for "OFF" time period begins. At the end of timing cycle, contacts close and "ON" time period for next cycle begins.

SOLID-STATE DELAY, INTERVAL AND CYCLE TIMERS

• Adjustable Time Ranges Up To 15 Minutes • ± 2% Repeat Accuracy

4.505

QUAD STATE TIMES

GENERAL TIME

1.875

12

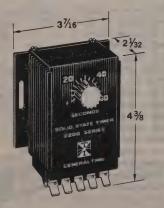
Versatile standard timers for the broadest range of applications. Eight pin plug-in or rear mount types. Available in delay, interval or delay on de-energization (D.O.D.) modes. Features: exceptional repeat accuracy, transient protection, 11 ranges, isolated outputs, AC or DC inputs, relay or solidstate outputs, low operating temperature and no first cycle effect. UL/CSA recognized.

SERIES 2111 AND 2211. Delay mode timer. Relay or output energization occurs at the end of the timed period and remains energized until the power is cut off. Timer may remain on indefinitely until it has timed out. May be applied to protect machines from damage during warm-up periods.

SERIES 2112 AND 2212. Interval or delay on de-energization. Measures an interval of action. May remain on indefinitely after it has timed out. Used to measure a process or time a portion of a complete cycle of operations.

SERIES 2113 AND 2213. On/Off cycle timer. Dual adjustable setting knobs located on the front of the timer. The large knob sets "on" time, the smaller knob sets "off" time. When energized, the timer will cycle and recycle continuously as long as the power is applied and will return to the "off" or de-energized state when power is removed.

SERIES 2111 PLUG-IN DELAY TIMERS



Stock	Mfr's	EACH					
No.	No. Type		5-9	10-49	50-Up		
800-1201 800-1203	2111-1PF-001 2111-1PF-003	29.50 29.50	25.05 25.05	24.00	20.20		
800-1215 800-1240	2111-1PF-015 2111-1PF-118	29.50	25.05 25.05	24.00	20.20		
800-1249	2111-1PF-160	37.25	31.65	30.45	25.90		
800-1260	2111-1PF-190	41.50	35.30	31.95	27.50		

SERIES 2112 PLUG-IN INTERVAL TIMERS

800-1601	2112-1PF-001	32.90	28.80	28.15	23.70
800-1610	2112-1PF-010	32.90	28.80	28.15	23.70
800-1620	2112-1PF-030	32.90	28.80	28.15	23.70
800-1630	2112-1PF-060	32.90	28.80	28.15	23.70
800-1660	2112-1PF-190	43.15	37.15		30.90

SERIES 2113 PLUG-IN ON/OFF CYCLE

800-400	1 2113-1PF-001	41.66	36.45	33.18	31.18
800-400	3 2113-1PF-003	41.66	36.45	33.18	31.18
800-401	5 2113-1PF-015	41.66	36.45	33.18	31.18
800-411	8 2113-1PF-118	48.17	43.85	40.96	36.06
800-416	0 2113-1PF-160	49.34	44.95	41.96	36.93
800-419	0 2113-1PF-190	54.69	47.75	46.50	40.93

SPECIFICATIONS

Repeat Accuracy: ±2% of set point under constant voltage and temperature conditions. Under one second a constant of ±20 ms will apply. Ambient Temp.:

-10 to +55°C. Relay Output: DPDT. 10 Amps resistive, 5 amps inductive at 117 VAC. 2.5 amps resistive at 117 VDC. 10 amps resistive at 28 VDC.

Power Input: 117 volts, 50/60 Hz AC or 117 VDC.

Max. Reset Time: 100 ms (300 ms in lower third of time band). Shpg. wt.: 8 oz.

Solid State Timers are also available for 24 VDC operation, and with solid state SPST output. Contact Allied for prices.

TIME RANGES

Suffix in Mfr's Type No. (tables below) indicates time range.

Suffix	Time	Setting	Suffix	Time Setting		
	Max.	Min.	Sullix	Max.	Min.	
001 003 005 010 015	1 sec. 3 sec. 5 sec. 10 sec. 15 sec.	.10 sec. .15 sec. 0.25 sec. 0.50 sec. 0.75 sec.	030 060 118 160 190	30 sec. 60 sec. 3 min. 10 min. 15 min.	1.5 sec. 3.0 sec. 9.0 sec. 60 sec. 90 sec.	

SERIES 2211 REAR MOUNT DELAY

Stock	Mfr's	EACH				
No.	Туре	1-4	5-9	10-49	50-Up	
800-2001	2211-1PF-001	30.40	25.85	24.70	20.80	
800-2010 800-2030	2211-1PF-010 2211-1PF-060	30.40	25.85 25.85	24.70	20.80	
800-2040	2211-1PF-118	30.40	25.85	24.70	20.80	
800-2048	2211-1PF-001	38.30	32.05	31.40	26.70	

SERIES 2212 REAR MOUNT INTERVAL

800-2403	2212-1PF-003	33.90	29.70	29.00	24.40
800-2415	2212-1PF-015	33.90	29.70	29.00	24.40
800-2430	2212-1PF-060		29.70		
800-2460	2212-1PF-190	44.45	38.25	37.20	31.85

SERIES 2213 REAR MOUNT ON/OFF CYCLE

800-5001	2213-1PF-001	48.43	42.35	38.57	36.25
800-5003	2213-1PF-003	48.43	42.35	38.57	36.25
800-5015	2213-1PF-015	48.43	42.35	38.57	36.25
800-5118	2213-1PF-118	56.61	49.40	45.08	42.37
800-5160	2213-1PF-160	57.94	50.80	46.15	43.37
800-5190	2213-1PF-190	61.03	53.25	48.61	45.68

Timers, Energy Saving Devices

WASTED ENERGY IS A LUXURY WE CAN NO LONGER AFFORD

In an era when rising utility rates and extended energy shortages are driving your energy costs up and up, leaving less money available for other important expenditures, wasted energy represents a critical loss of dollars. We'd like to help. On this page you'll find a wide variety of timers (wall mount, 24-hr., remote control etc.) to help you conserve energy and save those valuable dollars. In terms of the dollars saved through the elimination of needless energy consumption they will pay for themselves many times over.



MULTI-PURPOSE 24-HOUR TIMERS

PRECISION JEWELLED **STOPWATCHES**



1/10 SECOND STOPWATCH

1/5 SECOND STOPWATCH



ACROTYNE COMMERCIAL WALL CLOCK

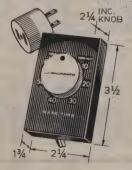
- Battery Operated
- Transistorized

Cordless, battery operated wall clock runs for about one year on a standard "D" cell. Transistorized with electronic tuning fork and magnetic coupling. Adjustable to within \pm 2 seconds per day. White convex dial; black numerals, hands; red sweep second hand. Steel case, 141/2" diameter. 12" dial. Shpg. wt: 41/2 lbs.

Stock	Mfr's	Finish	EA	СН
No.	Type	, Linian	1	2-Up
942-0613 942-0612	612 613	Bronze Chrome	40.00 42.00	32.50 35.00

REMOTE CONTROL TIME SWITCH

- · Turns Off **Appliances**
- Remote Control Operation



Remote On/Off control of almost any appliance. switch with ten foot cord lets you turn lamps, television, stereo or other appliances on or off from up to ten feet 1200 watts or ten amps. For 110-120 VAC. 859-0006. Type 40001Each 9.55

away. Timer can be set to turn off appliances after one hour within up to one hour, or it can be set to leave them on indefinitely. Easy to read dial. Handles up to

31/4 **EA911**

WALL MOUNT TIMER

Model E1010. Mounts in any wall box. Replaces the switch to provide 24-hour On/Off control of lights or appliances. Override switch allows manual control. Turns on at set time, turns off 15 minutes to 23³½ hours later. For 2x3x2" box. 120 VAC, 15 A, 1875 W. Shpg. wt: 2½ lbs. 818-1001......Each 12.95

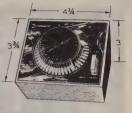
WALL MOUNT TIMER

24-HOUR TIMER

Model EA911. Automatically repeats time cycle every 24 hours. Min. ON Time: 15 min. Max. Off Time: 23 3/4 hrs. 120 VAC, 15 A, 1875 W. 3x41/4x35/6.". U.L. listed. 2 lbs. 818-1000. Each 10.82 10-Up. Each 9.72



Acts as a Watchman



While you're away this 24 hour timer will turn lights, radio, TV etc. on and off discouraging burglars by giving your home the lived-in look recommended by police and FBI. Turns on and off once, twice or more times daily. Supplied with four easily set trippers—2 'on,'' 2 'off.'' Max. on time: 23½ hrs. Min. on time: ½ hr. 875 watts, 15 amps, 12 amps Tungsten. ½ H.P. motor load, 125 volts, 60 Hz. AC. Champagne white case with Burl Walnut panel. 4½ x 3¾ x 3".

Stock	Type	Description	EACH		
No.	No.	Description	1-9	10-Up	
818-4011	EB-11	Timer	13.95	9.99	
818-4021	156EB1945A	Extra Trippers, 4	1.85	1.50	

TIME SWITCHES AND BELL TIMER







ELECTRONIC TIME SWITCHES

Model 78100. 10 A, 125 VAC. Adj. stop, "Hold" feature $3\% \times 3\% \times 3\% \times 31\%$ ". 1 lb. **Model 74700.** 20 A. 125-240 VAC "Off" or "On". $2\% \times 11\% = 2\%$ ounces.

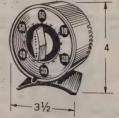
Stock	Mfr's	Maximum		EACH	
No.	Туре	Setting	1-4	5-11	12-Up
859-1258	78104	30 minutes	12.45	10.46	6.63
859-1259	78105	60 minutes	11.87	10.46	6.63
859-1260	78126	12 hours	11.87	10.46	6.63

EACH Stock Maximum Туре Setting 1-4 5-11 12-Up 74701 74702 74703 15 minutes 859-1254 859-1255 60 minutes 859-1256 10.95 8.06

BELL TIMER

TWO SPEED **BELL TIMER**

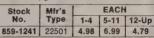
Seconds up to 6 Minutes, or Minutes up to 60



Model 2130. Two timers in one. Gives short or long timings. No more guessing as to how long something has been working. No more costly and disappointing mistakes. You know for sure when the object of your timing is ready. Times in seconds up to six minutes, or in minutes up to 60 minutes. Use short timing cycle for cake mixing, photography, telephone use, etc. Use long timing cycle for cooking, sun lamps, exercising, etc. Bell tone signals when time is up. Spring powered. Upright case on non-tip pedestal. 4" diameter x 2½" deep. Shipping weight: 18 ounces. 859-1230. 1-4....Each 9.00 5-11.....Each 6.99

"LONG RING" BELL TIMER

Model 22501. Times intervals up to 60 minutes with loud bell tones. Perfect for darkroom use. Times cakes and roasts in the oven. Countless other practical applications. Spring driven movement. White plastic finish. $5\frac{1}{2}$ x 4 x 2". Shpg. wt: 12 oz.





WALL BOX TIME SWITCHES

Fit std. wallbox. Auto turn off after preset time. U.L. recognized. CSA listed. 20 amps, 110-120 VAC, 60 hz. Shpg. wt: 9 oz. * "Hold" feature.

Stock	Mfr's Max.		EACH		
No.	Type	Setting	1-4	5-Up	
859-1266 859-1267 859-1268 859-1272	90004 90005 90006 90024*	5 Min 15 Min 30 Min 60 Min	10.12 10.12 10.12 10.12	7.99 7.99	
859-1270	90024*	12 Hrs	10.12		



Interval Timers for Energy Conservation

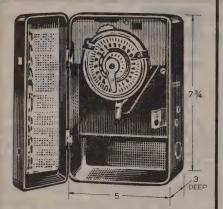
The application of interval timers can help conserve energy supplies in these days of rising fuel costs and shortages. Interval timers are ideal for such applications as turning on lights and advertising signs in the evening and off in the morning; turning on heating systems in the morning and off at night; operating air conditioning systems only when needed; and in industrial process control.

Interval timers permit a load to be turned on and kept on for a specific interval, then turned off automatically. Reset timers have mechanism so timer returns to starting position automatically after measuring a set time which can be delay or interval function. Delay refers to a situation requiring specific time delay before a load circuit is contributed. circuit is energized.

TIMER CROSS REFERENCE CHART

Intermatic	Paragon	Tork	Intermatic	Paragon	Tork
T101 T103 T171 T173 T174	4001-0 4003-0 4001-05 4003-05 4004-05	1191 1962 7100 7200 7202	T175 V46401 V48171 V45073R V45075R	4005-05 7007-0 23001-05 4003-OSZ 4005-OSZ	7120 W300 72002 71202

24-HOUR TIME SWITCHES



- 1 to 12 On-Off Operations Every Day
- Permits Timing From 1 to 23 Hours

Type T101. For dependable automatic control of lighting, signs, process control, heating and cooling, etc. SPST switch rated 40 amp inductive, 4375 watts tungsten; 2 hp and 690 VA pilot duty. Large, easy-to-read dial. "Alloy-T" contacts handle surges up to 8 times the rating. Heavy gauge steel case with hinged cover, spring hasp with hole for pad-lock. Gray hammertone finish. U.L. Recognized; C.S.A. Listed. 125 VAC. Wt. 3 lbs. 818-1417, 1-9. Ea. 19.95 10-Up. Ea. 13.31

Type T103. DPST timer; for 125 VAC. 818-1420. 1-9. Ea. 21.95 10-Up. Ea. 14.64 Type T171 "Skipper." Same as T101 but permits omitting selected days of weekly cycle. 125 V.

125 V.
818-1450. 1-9. Ea. 25.45

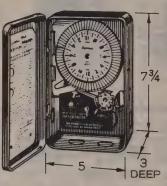
Type T173. DPST type; for 125 VAC.
818-1452. 1-9. Ea. 27.45

Type T174. DPST type; for 208-250 VAC.
818-1453. 1-9. Ea. 28.45

10-Up. Ea. 18.31

Type T174. DPST type; for 208-250 VAC.
10-Up. Ea. 18.98 Type T175. SPDT type; for 125 818-1454. 1-9. Ea. 27.45 10 VAC. 10-Up. . Ea. 18.31

TIME SWITCHES AND TIMERS



T1975

Type T1975 "Skipper" Program Timer. "Supervisor" with 96 trippers for 48 "on" and 48 "off" operations every 24 hours. Minimum interval, 15 minutes. For full-time control of heating, air conditioning, oil well pumps, poultry feeders, etc. "Skipper" feature omits selected days. Has 7-day Skipper wheel with handy push-pull tabs. SPDT switch rated 20 amps at 125 V, 60 Hz. U.L. Recog. Wt. 3¾ lbs. 818-1550...Ea. 37.45 10-Up...Ea. 24.88

Type T573-R Heavy-Duty Time Switch. For indoor-outdoor mounting. 24-hour dial. Skip feature omits selected days of the weekly cycle. DPST contacts rated 55 amps inductive, 6875 watts per pole; 2 hp motor load. Rain-tight case. Size, 9% x6½ x3%". Rated for 125 V, 60 Hz AC. Wt. 4 lbs. 818-1520. Ea. 42.45 10-Up. Ea. 28.31

Type 156T1952A Skipping Screws. For "Skipper" types only. 8 oz. 818-1585. Pkg. of 2.......Per Set .50

93/8 35/8

T573-R

15-MINUTE PROGRAMMER

Type T185 Deluxe Time Switch. Up to 12 independently controlled "on-off" trippers. Adjusts from 10-60 minutes. Minimum interval, 2 hours. Can be used to handle a wide range of cycle operations. Rated 40 amps (4375 W.) tungsten at 125 VAC. With 3 trippers (1 for each cycle); up to 12 can be used. Rated for incandescent loads with surge over 8 times normal. 734 x 5 x 3". Wt. 3 lbs. 818-1465. Ea. 26.95 10-Up. Ea. 17.98

Type V45073R/Astro "Skipper" Switch. Type V45073R/Astro "Skipper" Switch. Astronomic dial automatically resets itself as the days grow shorter or longer. Cutout dial can be programmed to skip operation on selected days. 40 amps per pole tungsten, 4800 watts, 1 hp; 690 VA pilot duty. For 125 V, 60 Hz AC. DPST contacts. Wt. 4½ lbs. 818-3001. Ea. 41.95 10-Up. Ea. 27.98

Type 156T1978A "On & Off" Trippers. For above switches (except T185). 818-1590. Wt 2 oz............Per Set .63

SUPERVISOR

73/4

DEEP



Type T1905. Has 96 permanently attached trippers for 1 to 96 "On" or "Off" operations of 15 minutes each, every day, Trippers slide in and out of dial for fast setting. SPDT switch rated 20 amps at 125 VAC; ½ hp. 7¼ x 5 x 3". Shpg. wt. 3¾ lbs. 4818-3060. 1-9 Ea. 35.45 10-Up Ea. 23.65

RESET TIMERS—DELAY AND INTERVAL TYPE DP11 PANEL MOUNT TIMER. Delay or interval timing. Time set by knob. Time elapsed readout. SPDT 10A switch, 120 VAC res. Dlal 3%/6" sq. 3%x2" behind dial. 120 V, 60 Hz. 1 jb.

Stock	Mfr's	Time		EA	СН	******
No.	Type	Range	1-9	10-24	25-49	50-Up
800-0090 800-0091 800-0092 800-0094	DP11 DP11 DP11 DP11	15 sec. 30 sec. 60 sec. 5 min.	28.95 28.95 28.95 28.95	23.50 23.50 23.50 23.50	22.25 22.25 22.25 22.25	20.95 20.95 20.95 20.95

(A) MODEL 402S PLUG-IN RESET TIMERS. Setting pointer holds at set point, progress pointer shows time remaining. Momentary or sustained contact, interval or delay timing. Reset time, 300 msec, 10 amps res. 31/6" dla. 41/2". 115 V, 60 Hz AC. 2 lbs.

Stock	Mfr's	Time		EA	СН	
No.	Туре	Range	1-9	10-24	25-49	50-Up
	402S-60S	60 sec.				
	402S-5M 402S-60M	5 min.	59.60		46.75	

MODEL 472 SURFACE-MOUNT AUTOMATIC RESET TIMERS. Synchronized motor driven with two cam-actuated switches, one solenoid-actuated. Differential clutch. For momentary or sustained contact, interval or delay timing. Repeat accuracy 1%. 3½x x 3½x x 2½x x 0.L. 115 VAC. 1¼ lbs.

765-0519 765-0515	472A-E15S 472A-E30S 472A-E15M 472A-E30M	30 sec. 15 min.	33.55 33.55	30.15	28.80 28.80	28.47 28.47	
765-0512	472A-E60M 472A-E5H 472A-E24H	5 hrs.	33.55	30.15	28.80	28.47	

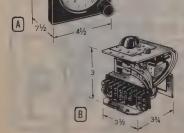
SERIES RB AUTOMATIC RESET DELAY TIMER

Used when delay is required be-tween closing of one circuit and subsequent operation of a circuit controlled through load switch of timer. Time delay is initiated with sustained application of power to synchronous motor of timer. Load synchronous motor of timer. Load switch remains actuated until power is removed. When opened, timer resets to period set on dial. SPDT 15 amp switch. Repeat accuracy: ±1%. 120 VAC, 60 Hz. Shpg. wt. 1 lb.



Stock No.	Type	Dongo	EACH				
	RB-	Range Min./Max.	1- 9	10- 99	100- 499	500- Up	
815-0456 815-0459 815-0460 815-0462	5.6S 56S 84S 4.5M	2.0 sec./54 sec. 3.0 sec./82 sec.	18.75 18.75 18.75 18.75	17.30 17.30 17.30 17.30	16.10 16.10 16.10 16.10	15.00 15.00 15.00 15.00	

Allied Offers a Full Line of Timers for Every Application - Reset, Delay, Interval, Repeat Cycle, Elapsed Time, Check Every Page to Find the Timer That Meets Your Requirements.













SERIES H AND SF TIME-DELAY TIMERS

Automatic reset units. For use where fixed or adjustable delay is needed between closing one circuit and opening or closing another. SPDT switch rated 10 amps at 115 VAC, with non-inductive load. All types have external clutch. H for front-panel mounting; SF for back-panel mtg.; all have 4-screw mtg. holes. Overall size: H, 3%x3%x3%%; SF, 2%x 3%x22%x2″. 110-120 V, 60 Hz AC. U.L. Recognized. Shpg. wt. 1½ lbs.



Stock Mfr's Tim	Mir's	Max.		Mfr's Max.	1 5 0 6	EACH			
	Cycle	No.			1-9	10-24	25-49	50-Up	
815-0075	H-6S	6 sec.	815-0070	H-1M	1 min.	27.50	23.53	22.20	21.87
815-0076	H-15S	15 sec.	815-0072	H-3M	3 min.	27.50	23.53	22.20	21.87
815-0077	H-30S	30 sec.	815-0074	H-5M	5 min.	27.50	23.53	22.20	21.87
815-0109	SF-6S	6 sec.	815-0103	SF-1M	1 min.	26.05	24.85	22.70	19.25
815-0110	SF-15S	15 sec.	815-0105	SF-3M	3 min.	26.05	24.85	22.70	19.25
815-0111	SF-30S	30 sec.	815-0107	SF-5M	5 min.	26.05	24.85	22.70	19.25

SERIES TO AND CTD TIME-DELAY TIMERS

10 amp synchronous-motor-driven. Clutch motor in TD series. External clutch in CTD. TD repeat accuracy ±1% of full scale. Reset approx. 5% of dial setting. CTD repeat accuracy 1½% of full scale. Reset ½ sec. at max. setting. All have 60 dial divi-

sions. For front mounting in 3" dia. hole. Bakelite case terminals at rear. SPDT contacts. Flange dia., 3\%2". Depth behind panel: 4\%2". For 110-120 V, 60 Hz AC. U.L. Recognized. Shpg. wt., 1\%2 lbs.

SERIES TDAB AND TDAF TIME-DELAY TIMERS

Series TDAB (back-mounted) and series TDAF (panel-Series IDAB (pack-mounted) and series IDAF (panel-mounted) timers for circuit controls where adjustable or fixed time-delay is required between the closing or opening of one circuit and the closing or opening of another circuit. For applications requiring high repetitive accuracy, fast reset, and heavy usage.

Automatic reset of timing/switching movement in less than 0.2 second. Ideal for plastic molding equipment, packaging machinery, graphic arts equipment and other uses. Snap-action switches (SPDT) rated 10 amps. Sizes: TDAB, 4%,x37½,x4½"; TDAF, 4½,x3%x3%". For 110-120 volts, 60 Hz AC. Shpg. wt. 4 lbs.

Max.		BACK MOUNT		PANEL MOUNT		Max.		BACK MOUNT		PANEL MOUNT	
Time Cycle	Dial Div.	Stock No.	Type TDAB-	Stock No.	Type TDAF-	Time Cycle	Dial Div.	Stock No.	Type TDAB-	Stock No.	Type TDAF-
1 sec. 3 sec. 6 sec. 15 sec. 30 sec. 60 sec.	1/60 sec. 1/20 sec. 1/10 sec. 1/4 sec. 1/2 sec. 1 sec.	815-0516 815-0520	15S 60S	815-0540 815-0543 815-0545 815-0547 815-0549 815-0551	1S 3S 6S 15S 30S 60S	3 min., 5 min. 15 min. 30 min. 60 min. 3 hrs.	3 sec. 5 sec. 15 sec. 30 sec. 60 sec. 3 min.	815-0511 815-0513 815-0515 815-0517 815-0519 815-0510	3M 5M 15M 30M 60M 3H	815-0544 815-0546 815-0548 815-0550 815-0541	5M 15M 30M 60M 3H

	*			
Туре	1-9 Each	10-24 Each	25-49 Each	50-Up Each
Any TDAB or TDAF	43.00	40.85	38.70	32.25

SERIES 90 TIME-DELAY TIMERS

Rugged, compact timer for use in applications where the time-delay cycle is infrequently changed, or permanently fixed. Excellent for use in photocopy equipment, induction heating units, transmitters, etc. Changes in time delay cycle are made by loosening

set screw and offsetting one cam arm in relation to the other. Totally enclosed, snap-action SPDT switch contacts are rated at 10 amps at 115-230 volts AC. Overall size: (HWD): 2%x2/4x2/4/". For 115 V, 60 Hz AC. U.L. Recognized. Shpg. wt. 1 lb.

Stock	Mfr's	Set	tings	EACH				
No.	Турв	Min,	Max.	1-9	10-24	25-49	50-Up	
815-0601 815-0602 815-0603 815-0604 815-0605	90-6S 90-16S 90-30S 90-60S 90-90S	½ sec. 1½ sec. 3 sec. 6 sec. 9 sec.	6 sec. 15 sec. 30 sec. 1 min. 1¼ min.	17.00 17.00 17.00 17.00 17.00	16.15 16.15 16.15 16.15 16.15	15.30 15.30 15.30 15.30 15.30	13.25 13.25 13.25 13.25 13.25	

SERIES MTD TIME DELAY TIMERS

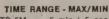
Provides predetermined timed delay between closing of one load circuit and operation of timer's isolated load switch. Contacts 10 A. SPDT snap action. Mounts through 3" hole in panel. 115 V, 60 Hz. 2½ lbs. TIME RANGE - MAX/MIN MTD-5M - 5 min./ 5 sec. MTD-15M - 15 min./15 Sec. MTD-15S - 15 sec./¼ sec. MTD-30S - 30 sec./½ sec. MTD-30S - 30 sec./½ sec. MTD-60S - 60 sec./ 1 sec. Provides predetermined timed



Stock	Mfr's	1-	10-	25-	50-
No.	Type	9	24	49	Up
815-0278	MTD- 5M	39.50	37.97	36.45	31.87
815-0280	MTD-15M	39.50	37.97	36.45	31.87
815-0281	MTD-15S	39.50	37.97	36.45	31.87
815-0283	MTD-30S	39.50	37.97	36.45	31.87
815-0284	MTD-60M	39.50	37.97	36.45	31.87
815-0285	MTD-60S	39.50	37.97	36.45	31.87

SERIES GTD TIME DELAY TIMERS

Instant automatic reset. SPDT load switch rated 10 amps non-inductive. Requires 3" mounting hole. 4232" behind panel. Flange: 4 x 434". 114 VAC, 60 Hz. 2 lbs.



GTD-5M - 5 min./ 5 sec GTD-15M - 15 min./15 sec GTD-60S - 60 sec./ 1 sec. GTD-30M - 30 min./30 sec GTD-60M - 60 min./ 1 min

Stock	Mfr's	9	10-	25-	50-
No.	Type		24	49	Up
815-0165	GTD- 5M	45.00	42.37	40.95	35.55
815-0168	GTD-15M	45.00	42.37	40.95	35.55
815-0169	GTD-60S	45.00	42.37	40.95	35.55
815-0170	GTD-30M	45.00	42.37 42.37	40.95	35.55 35.55

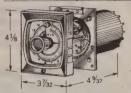
TYPE MPB INTERVAL TIMER





Depressing pushbutton in center of selector ring engages synchronous motor and closes SPDT snap action isolated load switch. At end of cycle, timer automatically resets to zero and opens load switch. Contacts rated 25 amps non-inductive at 115 volts, 60 Hz AC. Double load operation possible. Specify timing range desired. Av. Shpg. wt: 3 lbs.

Stock	Type	Time :	Setting	EACH			
No.	MPB	Max.	Min.	1-9	10-24	25-Up	
815-0329	60S	60 sec.	1 sec.	22.50	20.25	18.00	
815-0322	5M	5 min.	5 sec.	22.50	20.25	18.00	
815-0324	15M	15 min.	15 sec.	22.50	20.25	18.00	
815-0328	60M	60 min.	60 sec.	22.50	20.25	18.00	
815-0320	3H	3 hr.	3 min.	22.50	20.25	18.00	





GP PLUG-IN INTERVAL TIMER

Automatic reset, synchronous motor driven, plug-in timing control. Completely interchangeable with over 80% of most widely used plug-in timers. Provides two delayed set and two instantaneous sets of contacts. Features Spider Clutch. Switches are rated 10 amps, non-inductive at 125/250 VAC and have a mechanical life of 10 million cycles and 500,000 cycles at 10 amps. Neon pilot lamp built into dial to indicate timer motor is receiving power. Repeat accuracy: ¼ %. Reset time less than ½ sec. for full scale. Size: 4½ x 33½x x 4½x². Requires mounting hole 3½x² ±½x². 3 lbs.

Stock	Mfr's	Time S	etting	EACH			
No.	Type	Max.	Min.	1-9	10-49	50-Up	
815-0161 815-0164	GP-60S GP-60M	60 sec. 60 min.	1 sec. 60 sec.	46.59 46.59	40.00 40.00	37.40 37.40	

LPB INTERVAL **TIMER**

Depressing pushbutton engages synchronous motor and closes SPDT load switch. At end of cycle timer automatically resets and opens load switch. Double load operation possible. 15 A non-inductive, 125/250 VAC. Wt. 2 lbs.



	j	Time	Setting		EACH			
Stock No.	Type LPB	Max.	Min.	1-9	10-49	59-Up		
815-0442 815-0445	15M 3H	15 min. 3 hrs.	15 sec. 3 min.	19.50 19.50	16.60 16.60	14.60 14.60		

TYPE DA 20-AMP TIME DELAY TIMERS

SPDT 20-amp switch, 125 or 250 VAC resistive. Internal clutch engages and disengages when motor is energized and de-energized. Series DA1103 has knob adjustment. Series DA2100 has locknut adjustment. Size, 3% x 1% x 3% / U.L. Recognized. Shpg. wt. 1½ lbs.



120 VOLTS AC

Stock	Type	Time	EACH		СН	
No.	DA-	Range	1-9	10-24	25-49	50-Up
800-0050 800-0052 800-0054	11031 11032 11033	0-14 sec. 0-57 sec. 0-4.5 min.	23.55 23.55 23.55	20.00	18.10 18.10 18.10	17.05 17.05 17.05
800-0062 800-0064 800-0068	21001 21002 21004	0-14 sec. 0-57 sec. 0-9.5 min.	23.55 23.55 23.55	20.00	18.10 18.10 18.10	

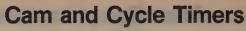
240 VOLTS AC 11032 0-57 sec. 24.70 11033 0-4.5 min 24.70 21.00 19.00 21.00 19.00

HANDSET INTERVAL TIMER

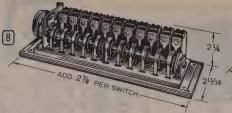
TYPE AB51. For appliances, vending machines, etc. SPDT switch; rated 25 A, ¾ hp at 120 VAC. Motor rated 5 W, 60 Hz; 3.4 W, 50 Hz. Three mtg. holes on .562" radius. Setting shaft ¼" dia., flatted. 31% x 2½ x 23%" behind panel. Less knob and dial. 120 VAC. Specify range. U.L. Recog. ¾ lb.

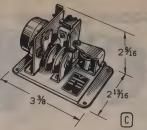


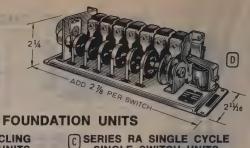
range. C.L.	range. C.L. riccog. 74 io.										
Stock	Mfr's	Time	EA								
No.	Type	Range	1-9	10-24	25-49	50-Up					
800-0004 800-0007 800-0009 800-0011	AB51 AB51 AB51 AB51	15 min. 2 hour 8 hour 24 hour	10.68 10.68 10.68 10.68	9.10 9.10 9.10 9.10	8.25 8.25 8.25 8.25	7.75 7.75 7.75 7.75 7.75					

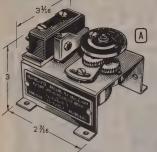












SERIES CM, MC, RA AND RC PROGRAMMING **CAM TIMERS**

- 4 Basic Foundation Units
- Single Cycle or Recycling Models
- 15 Gear Rack Assemblies
- Heavy-Duty Synchronous Motors

HOW TO ORDER CAM TIMERS

Complete Cam Timer consists of foundation unit (Series CM, MC, RA or RC) and gear rack assembly. (Foundation unit includes motor.) To order:

1. Select foundation unit desired—Series CM, MC, RA or RC. 2. Refer to Gear Rack Time Chart below and select desired timing cycle. Numbers to the left of chosen time cycle are the gear rack assembly Type and Stock Numbers. Number above the chosen time cycle indicates the correct foundation unit suffix. 3. Refer to the charts at the right for complete foundation unit Type and Stock Number. When ordering be sure to specify both Allied Stock number and Manufacturer's Type number. Two parts must be ordered for complete timer.

EXAMPLE: To order an MC foundation unit with four switches and a 6m time cycle, order an MC-6-4 (Stock number 815-0230), and a D-18 gear rack assembly (Stock number 815-0131).

Additional gear rack assemblies may be ordered separately.

GEAR RACK TIME CHART

In chart below s = seconds, m = minutes, and h = hours.

Stock	Rack	EACH		Foundation Unit Mit's Type/CM, MC, KA or HC-						
No.	Mfr's Type	LACII	-2	-4	5	6	-8	-10		
815-0130	E-14	1.75	11.67s	46.67s	2m20s	3m53s	23m20s	2h20s		
815-0061	C-12	1.75	15s	60s	3m .	.5m	30m	3h		
815-0131	D-18	1.75	18s	72s	3m36s	6m	36m	3h36m		
815-0028	B-12	1.75	20s	80s	4m -	6m40s	40m	4h		
815-0132	C-18	1.75	. 22.5s	90s	4m30s .	7m30s	45m	4h30m		
815-0030	B-15	1.75	25s .	100s	5m	8m20s	50m	5h		
815-0010	A-12	1.75	30s	2m	6m .	10m -	60m	6h		
815-0133	D-36	1.75	36s	144s	7m12s	1 12m	72m	7h12m		
815-0014	A-16	1.75	40s	160s	8m	13m20s	80m	8h		
815-0134	A-18	1.75	45s	3m	9m	15m	90m	9h		
815-0135	B-32	1.75	53.33s	213.4s	10m40s	17m47s	106m40s	10h40m		
815-0022	A-24	1.75	60s	4m /	12m	20m	2h	12h		
815-0136	A-28	1.75	70s	280s	14m	23m20s	2h20m	14h		
815-0024	A-30	1.75	75s	5m	15m	25m	2h30m	15h		
815-0026	A-36	1.75	90s	6m	18m	30m	3h	18h		

SERIES CM RECYCLING SINGLE SWITCH UNITS

SINGLE SWITCH UNITS
Repeats a continuous, adjustable On/Off
electrical cycle. Unit consists of heavyduty synchronous motor, adjustable cam,
SPDT snap-action switch, assembled on
base mount chassis. Cam is coupled to
motor by a gear and rack assembly
(ordered separately). Adjustable cam allows the On/Off cycle to be set anywhere
within 2% to 98% of the total time cycle.
Contacts rated 10 amps at 115 VAC or 22.
VAC, 60 Hz. U.L. Recognized. 2% x 3 x
3%. Shpg. wt: 1½ lbs.

Stock	Mfr's	EACH						
No.	Type	1-9	10-49	50-99	100-Up			
815-0085	CM-2	18.70	17.30	16.05	15.00			
815-0086	CM-4	18.70	17.30	16.05	15.00			
815-0087	CM-5	18.70	17.30	16.05	15.00			
815-0082				16.05				
815-0090	CM-8			16.05				
815-0092	CM-10	18.70	17.30	16.05	15.00			

SERIES MC RECYCLING **MULTI-SWITCH UNITS**

Identical in operation to CM timer above, but controls two, four or six circuits. Cams are mounted on single drive shaft, coupled to motor by gear and rack assembly (order separately). Cams adjustable in any combination of timed sequences. Shpg. wt: 1½ lbs.

TWO-SWITCH UNITS

STOCK MILLS										
	No.	Type	1-9	10-49	50-99	100-Up				
	815-0201	MC-2-2		32.75						
	815-0210	MC-4-2	35.50	32.75	30.50	28.50				
	815-0219	MC-5-2	35.50	32.75	30.50	28.50				
	815-0236	MC-8-2	35.50	32.75	30.50	28.50				
	FOUR-SWITCH UNITS									
	815-0203									
	815-0221									
	815-0230	MC-6-4	52.60	46.80	43.50	38.15				
	815-0246	MC-10-4	52.60	46.80	43.50	38.15				
ľ		CIV-C	WITCH	HMITS						

00		SIX-S	1
00	815-0360 815-0369	RC-4-6 RC-5-6	E

SINGLE SWITCH UNITS

Unit provides single timed electrical cycle upon momentary actuation from a remote position. At actuation the relay mechanically disengages a lever from the camnotch, simultaneously starting the motor. At end of revolution pawl guides the lever into notch, stopping motor after completing one revolution. SPDT snap-action switch. Contacts rated 10 amps at 115 VAC, 60 Hz. U.L./CSA approved. Shpg. wt: 1½ lbs.

Stock	Mfr's		EA	EACH				
No.	Туре	1-9	10-49	50-99	100-Up			
815-0180		33.61						
815-0181		33.61						
815-0182		33.61						
815-0185	RA-10	33.61	31.00	28.75	26.85			

DSERIES RC SINGLE CYCLE **MULTI-SWITCH UNITS**

Identical to type RA timer, but operates two, four, or six circuits. Provides single timed electrical cycle upon momentary actuation from a remote position. Cams individually adjustable. Combines advantages of MC Series with homing control of RA series. Shpg. wt: 1½ lbs.

TWO-SWITCH UNITS

Stock	Mfr's	EACH					
No.	Туре			50-99 100-Up			
815-0347	RC-2-2	50.50	45.00	41.65 36.50 41.65 36.50			
815-0383	RC-8-2	50.50	45.00	41.65 36.50			

FOUR-SWITCH UNITS

815-0349 F	RC-2-4 68.0	00 61.20 5	7.00 53.10
815-0358 F	RC-4-4 68.0	00 61.20 5	7.00 53.10

VITCH UNITS

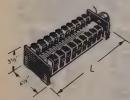
SINGLE POLE CYCLE TIMER



524 SERIES. Single Circuit repeat 524 SERIES. Single Circuit repeat cycle control. Chassis only—includes baseplate, cam, switch. Complete timer unit consists of chassis, plus motor, plus gear rack (order separately from chart to the right). Adjustable cam: 2% to 98% of total cycle. SPDT switch—20 A non-inductive @ 125, 250 or 480 VAC. Repeat acc: ±0.9°. 2% x 3%6 x 216/32". U.L. recognized. 115 V, 60 Hz AC.

Stock		EAG	CH	
No.	1-9	10-24	25-49	50-Up
765-0524	11.85	11.25	10.05	9.50

MULTI-POLE CYCLE TIMERS



540 SERIES. Controls 2-10 independent circuits. Chassis only — order motor and gear rack separately. Cams individually adjustable over 2% to 98% of total time cycle. Chassis includes baseplate, cams and switches. SPDT switch rated at 15 amps non-inductive at 115 VAC. Repeat accuracy: ±1.8. U.L. recognized. 115 V, 60 Hz AC.

Stock	Туре	Poles	Overall		EA	CH	
No.	o. 540 Poles Length	1-9	10-24	25-49	50-Up		
765-0540 765-0542 765-0544 765-0546	-2 -4 -6 -8	2 4 6	4%.6" 5%.6" 6%.6" 7%.6"	35.90 49.20	34.05 46.65	22.60 30.45 41.75 53.00	28.70 39.80
765-0548	-10	10	8%10"			64.25	

HOW TO ORDER CYCLE TIMERS

Complete cycle timer unit consists of Model 524 or 540 chassis, plus motor, plus gear rack. To order, choose the basic chassis (either single-pole Model 524 or multi-pole Model 540) from descriptions at the left. Then select time cycle desired from selection chart

below and order appropriate motor and gear rack from the chart. EXAMPLE: For 6-pole Model 540 with 60 second time cycle, order Model 540-6 chassis (Stk. No. 765-0544), motor 10145 (Stk. No. 765-0408), and gear rack 540B2-2926-7 (Stk. No. 765-0207).

GEAR RACKS FOR CYCLE TIMERS (Mfr's Types with . . . in Stk. No. column available by Special Order only)

GEAR RACKS For Model 524 Chassis For Model 540 Chassis Cycle Times Min. Min. **765-0301** 524B2-4804-1 524B2-4804-2 524B2-4804-3 **765-0201** 540B2-2926-1 **765-0202** 540B2-2926-2 **765-0203** 540B2-2926-3 524B2-4804-4 765-0305 524B2-4804-5 765-0205 540B2-2926-5 4.5 9.0 20.0 765-0307 52482-4804-6 ... 54082-2926-6 765-0307 52482-4804-7 765-0207 54082-2926-7 52482-4804-8 765-0208 54082-2926-9 52482-4804-9 ... 54082-2926-9 52482-4804-10 765-0210 54082-2926-10 11.0 12.0 13.0 14.0 15.0 22.8 24.0 26.0 27.5 30.0 32.5 2.75 3.0 3.25 22.0 24.0 26.0 28.0 30.0 22.0 765-0311 52582-4804-11 52482-4804-12 52482-4804-13 52482-4804-14 16.0 17.0 18.0 19.0 32.0 34.0 36.0 38.0 40.0 4.0 4.25 4.5 4.75

		M	OTORS	FOR	CYCL	E TIP	MERS							
	Spee	ed, rpm (*rph)	40	20	10	8	4	1-1/3	2/3	1/6	1/18	1/45	2/3°	1/6*
1.	For Model Type No. 524 Chassis Stock No. 765-	Type No. 100	10108				10112						10118	
Motors		Stock No. 765-	-0401				-0409						-0421	
	For Model	Type No.	10141	10142	10143	10144	10145	10146	10147	10148	10149		10151	10152
	540 Chassis	Stock No. 765-	-0400	-0402	-0404	-0406	-0408	-0410	-0412	-0414	-0416		-0420	-0422

PRICE CHART	1-9	10-49	50-Up
Gear Racks. Specify Type and Stock No. Motors. Specify Type and Stock No.	4.50 12.60	3.00 8.40	2.40 6.12



ALLIED'S TIMING CIRCUITS HANDBOOK

Thirty-page book is packed with timing circuits and design tips. Shows how to use repeat cycle timers with relays and other components to control pumps, compressors, lights, heaters and special purpose machines. Each circuit diagram calls out Allied stock numbers for every part, so you can obtain all parts easily. Circuits apply to literally hundreds of industrial and laboratory control situations. A valuable handbook for engineers, technicians and maintenance personnel. Excellent for use in high school and trade school electricity classes. Essential for all users of repeat cycle 664-9999 Each 3.95



GLOSSARY OF TIMER FUNCTIONS

Reset Timers have mechanism so timer returns to starting position automatically after measuring a set time which can be delay or interval function. Delay refers to a situation requiring specific time delay before a load circuit is energized. Interval is where load is to be turned on and kept on for a specific interval, then turned off automatically. Repeat Cycle Timers have cams to turn snap-action switches on or off according to pre-set time intervals, in a definite sequence.

TYPE RG21 REPEATING-CYCLE TIMERS

- Adjustable Timing-Cycle Cam
- For Continuous Running

Designed to run continuously, repeating a set cycle of make-break switching operations as long as the motor is energized. May be applied to operations requiring only a single time cycle. Wireable through contacts for 1-cycle limit. Adjustable timing-cycle cam. SPDT, 20-amp switch; 125 or 250 VAC, resistive, 50-60 Hz. Has ½" shaft. For 120 V, 60 Hz AC. Size, 3½ x 2½,6 x 2½,2". U.L. Recognized. Wt. 1 lb.



Stock	Mfr's	Time	· · · · · ·	EA	СН	
No.	Туре	Range	1-9	10-24	25-49	50-Up
800-0312 800-0313 800-0315	RG21-093 RG21-094 RG21-096	1 min, 5 min. 15 min.	18.10 18.10 18.10	14.75 14.75 14.75	13.95 13.95 13.95	13.10 13.10 13.10

REPEAT CYCLE MULTI-CAM TIMERS

SERIES RE62. Same specifications as Type RG21 timers above, but 2 to 6 switches may be actuated during cycle. Requires one motor, one or more switch stacks. Two-switch unit size, $2\%_6 \times 3\%_2 \times 3\%_6''$; add $1\%_6''$ to depth for each additional switch. U.L. Recognized. Wt. $1\frac{1}{2}$ lbs.

Drive Motors. One motor must be ordered with switch stacks for a complete unit. † indicates cam shaft speed for one revolution.



SWITCH STACKS

Stock	Mfr's	No. of		EA	СН	_
No.	Туре	Switches	1-9	10-24	25-49	50-Up
800-0276 800-0278 800-0284	RE62-091 RE63-092 RE66-095	2 3 6	16.80 22.55 40.10	13.70 18.60 32.60	12.95 17.35 30.80	12.15 16.30 29.00

DRIVE MOTORS

Stock	Mfr's	Range		EA	CH	
No.	Туре	(†)	1-9	10-24	25-49	50-Up
800-0152 800-0153	MP10-392 MP10-393	30 sec. 1 min.	13.10 13.10	10.50 10.50	6.70 6.70	6.35 6.35

MODEL 60 REPEAT CYCLE TIMERS

Compact single-cam timers are available with one switch for SPDT action, or two switches for DPDT action. Ideal for life testing relays, solenoids, low wattage electrical devices of all kinds. Instrument quality hysteresis motor has fine pitch gearing, lifetime oil reservoir, extremely low noise level. Cam is adjustable without tools to deliver pulse from 2 to 58 seconds; rotates at 1 RPM. Motor operates from 105/130 volts, 60 Hz AC. Interchangeable cams are available for no-tool installation. installation.



SINGLE CAM 1-RPM TIMER

						_	of Military.
Stock	Mfr's	No. of	Switch		EAG	CH	
No.	Type	Switches	Rated	1-9	10-24	25-99	100-Up
664-0001 664-0010	60-044 60-258	1 2	10 A at 125/250 VAC, ½ hp 5 A at 125/250 VAC, ¼ hp	11.95 15.95	10.45 14.50	9.20 13.40	8.10 12.50
			071 11 11 11 11 11 11 11 11	10100	1 1100		1

INTERCHANGEABLE CAMS

Fit type 60-044 and 60-258 single cam timers (listed above). Type 56-269 is blank, and can be machined for custom program.

Stock	Mfr's	Sec	onds	E	ACH	Stock	Mfr's	Seco	onds	E	ACH
No.	Type	On	Off	1-99	100-Up	No.	Type	On	Off	1-99	100-Up
664-0201 664-0205 664-0210 664-0215	56-263 56-264 56-265 56-266	2 3 5 10	2 3 5 10	.90 .90 .90	.80 .80 .80	664-0220 664-0225 664-0230	56-267 56-268 56-269	15 30 Bla	15 30 ink	.90 .90 .90	.80 .80 .80

REPEAT CYCLE TIMER KITS

These useful kits contain either a single-switch timer (SPDT) or a double-switch timer (DPDT) plus 10 manually interchangeable cams for versatility in hundreds of timing applications. Cams can be easily changed . . . just back off thumbscrew. One cam is adjustable without tools to give pulse from 2 to 58 seconds. Three are blank, for custom designed programs. Remaining six are per chart under "Interchangeable Cams" (above). Camshaft rotates at 1 RPM. Motor operates from 105/130 V, 60 Hz AC.

Stock	Mfr's	No. of	Switch		EACH		
No.	Туре	Switches	Rated	1-9	10-24	25-99	100-Up
664-0100 664-0110	0 0-101 60-073	1 2	10 A at 125/250 VAC, ½ hp 5 A at 125/250 VAC, ¼ hp	16.95 21.95	14.95 19.75	13.45 18.00	12.45 16.50

TYPE AK65 SINGLE-CYCLE TIMER KIT

Versatile two-switch timer kit with 16 interchangeable cams is the equivalent of several conventional single-cycle timers. Dependable two-switch timer, rugged DPDT relay and terminal block are mounted to heavy aluminum frame. The kit also includes wire, terminals, capacitor, and everything necessary for use. You wire it as required to start cycle from either a momentary closure or maintained closure. Complete wiring instructions and applications tips are included. Can be used for alternating duplex pumps, in motor overload and reversing circuits, for timing heaters, air clamps and cylinders, for controlling sirens and alarm horns, and for all types of industrial and laboratory timing applications. Pre-cut cams fit only this AK65 kit, and can be installed to yield cycle times of 4, 6, 10, 20, 30 or 60 seconds. Blank cams can be machined to yield other cycle times as well as to control second switch for special program within duration of the single cycle. Camshaft rotates at 1 RPM. Motor operates from 105/130 V, 60 Hz AC. Relay rated 5 A at 125 VAC.



Stock	Mfr's	Two Switches		EACH 10-24 25-99 100-Up 44.50 41.15 36.00		
No.	Type	Rated	1-9	10-24	25-99	100-Up
664-0300	AK65-001	5 amps at 125/250 VAC, 1/4 hp	49.50	44.50	41.15	36.00

TYPE B RECYCLING TIMERS

Precise timing device provides two adjustable and continuous time cycles. Any combination of 10 interchangeable timing elements is possible. Elements are synchronous motor driven, automatic reset timers. Housed in formed steel case with four pronged plug-in receptacle in the rear. Wt. 3 lbs.

Stock	\$84s1m	Mfr's Range		EACH				
No.	Type	Max./Min.	1- 9	10- 99	100- 499	500- Up		
815-0466 815-0467 815-0468 815-0469 815-0470	ET-60S ET-5M ET-30M	30 sec./ $\frac{1}{2}$ sec. 60 sec./1 sec. 5 min./5 sec. 30 min./30 sec. 60 min./60 sec.	48.49 48.49 48.49 48.49 48.49	44.00 44.00 44.00 44.00 44.00	41.80 41.80 41.80 41.80 41.80	39.71 39.71 39.71 39.71 39.71		

Case available as separate part only.

815-0472 Tandem Case **EACH 75.00**





ELAPSED TIME INDICATORS DISPLAY NUMERICALLY THE PASSAGE OF TIME

MODEL C-2 RUNNING TIME METER

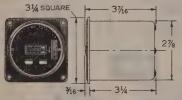


C-2. Non reset type. Designed to harmonize with other instruments installed on a panel. Completely enclosed. Moisture and dust resistant. Screw terminals on back of case for wiring. Count: 1/10 hr. Range: 10,000 hrs. 115 V, 60 Hz.

Stock	Mfr's					
No.	Туре	1-4	5-9	10-24	25-Up	
815-0050	C-2	20.00	19.00	18.00	16.00	

NEW!

MODEL C-5 RUNNING TIME METER



C-5. Reset type. Mounted in a baked black finish steel housing. Reset wheel protrudes slightly out front of dial for thumb reset. Screw terminals on back of unit for wiring. Completely enclosed, moisture and dust resistant for longer life and greater operating efficiency. Count: 1/10 hr. Range: 10,000 hrs. 115 V, 60 Hz.

Stock	Mfr's		Ea	ich	
No.	Type	1-4	5-9	10-24	25-Up
815-0053	C-5	42.50	40.38	38.25	34.00

Elapsed Time Indicators ELAPSED TIME INDICATORS



Variety of Shapes and Mounting Styles

Wide variety of meters for use where accurate time readings are required. All are synchronous-motor driven. Round, square bezel, panel mount and rear mount available. Resetable or non-resetable, readout is digital with a range of five figures plus tenths; in hrs. and tenths or minutes and tenths *except 4 figures and tenths. Units are 120 VAC and 240 VAC, 80 Hz. Operating temp., -12°C to +55°C. Registers hours, tenths, unless otherwise noted. U.L. Recognized. NR types: non-reset; R: reset.

Model No.	Bezel Inches	Depth Inches	Dia. Inches	Max. W Motor Rating	Leads or Terminals
EF13 NR	2 1/8 rd.		2.11	2.5	6" leads
EF27 NR	2 3/8 sq.		2.11	5.0	6" leads
ED71 NR*	1 3/4 sq.		1 ¹⁷ / ₃₂	2.5	111/4 leads
EN30 NR	3 sq.	35/6	211/16 211/16 211/16	3.7	8-32 studs
ER30 R	3 sq.	35/6		3.7	8-32 studs
ER35 R	3½ rd.	35/6		3.7	8-32 studs





• Precision Synchronous Motor Driven

120 VOLTS AC 60 Hz

†Registers minutes and tenths, otherwise hours and tenths.

Stock		Mfr's		EA	CH	
No.	Туре Туре	1-9	10-24	25-49	50-Up	
800-0110 800-0112 800-0118 800-0120 800-0108	NR NR NR NR NR	EF1333† EF1335 EF2733† EF2735 ED7112*	13.25 13.25 15.60 15.60 30.65	10.80 10.80 12.70 12.70 25.00	10.20 10.20 12.00 12.00 23,60	9.60 9.60 11.30 11.30 22.20
800-0124 800-0130 800-0132 800-0136	NR R R	EN3012 ER3020† ER3022 ER3522	23.90 34.65 34.65 34.65	19.45 28.25 28.25 28.25	18.40 26.65 26.65 26.65	17.30 25.10 25.10 25.10

240 VOLTS AC 60 Hz

800-0113 NR EF1335 14.	45 11.75 11.10 10.45
------------------------	----------------------



INDUSTRIAL STOP CLOCKS

- Extremely Fast Clutch Pull-in Time
- Synchronous Motor
- Automatic Wear Compensation

Measure time intervals for process and production controls, time study and many other industrial applications. Synchronous motor, cone clutch which provides exceptional pull-in speed, 360° engagement, and automatic compensation for any wear that may occur are only a few of the advanced features. Clutch pull-in time is so rapid that no compensation in the dial is required for inaccuracy. Remote start-stop and reset receptacles on side of case. Front panel reset button. Reset time: 0.010 second. Size, $5 \times 5 \times 4\frac{26}{22}$ ". 115 V, 60 Hz AC. Wt. 5 lbs.

MODEL SC-100. Measures 0.01 second to 60 seconds. Accuracy: 0.01 second.

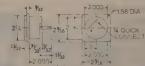
MODEL SC-60. Measures 1 second to 60 minutes. Accuracy: 0.1 second.

Stock No.	Mfr's		EA	CH	
	Type	1-9	10-24	25-49	50-Up 51.38 51.38
315-0435 315-0432	SC-100 SC-60	68.50 68.50	58.23 58.23	54.80 54.80	











RUNNING TIME METERS

Non-resettable counters. In electrical apparatus wired in parallel with main On-Off switch; on non-electrical equipment wired between ground and primary of ignition coil; on diesel equipment connected to starting battery. C-6 and C-6W are heavy duty, with rugged pulse wound movement. C-9 powered by synchronous motor. C-6 and C-9 are flange mig. with 4 screws in 2%6" cutout. C-6W mig. by bracket. Require 3%6" behind panel. C-6 and C-6W universal from 4-50 VDC. C-9—115 VAC. Wt. 1 lb.

Stock	Mfr's		EA	ACH		
Mo.	Туре	1-4	5-9	10-24	25-Up	
815-0071 815-0073 815-0042	C-6. C-6W C-9	21.20 21.20 21.20	19.25 19.25 19.25	18.28 18.28 18.28	17.36 17.36 17.36	





NON-RESET ELAPSED TIME INDICATORS

SERIES 635. High accuracy motor with 6-digit register; large numerals on 1" wheels. Mounts in 2.22" dia. panel hole. Unit is 2.7187" deep, with 2.69" dia. bezel. U.L. Listed. For 115 volts, 60 Hz AC. Shpg. wt. $\frac{3}{4}$ lb. 635G, $2\frac{1}{2}$ " Round; 635K, $2\frac{1}{2}$ " Square.

Stock	Mfr's	Total Count	Total Count		CH	
No.	Type	e Total Count		10-24	25-49	50-Up
765-0632	635.GL100	99,999.9 minutes	12.75	12.11	10.84	10.20
765-0633	635.GM100	999,999 minutes	12.75	12.11	10.84	10.20
765-0634	635.GS100	99,999.9 hours	12.75	12.11	10.84	10.20
765-0635	635.GT100	999,999 hours	12.75	12.11	10.84	10.20
765-0654	635KL100	99,999.9 minutes	13.25	12.10	10.85	10.20
765-0656	635KM100	999,999 minutes	13.25	12.10	10.85	10.20
765-0650	635KS100	99,999.9 hours	13.25	12.10	10.85	10.20
765-0652	635KT100	999,999 hours	13.25	12.10	10.85	10.20



PUSH-BUTTON RESET ELAPSED TIME INDICATORS

- High Accuracy Motor with
 6-Digit Register
- Large Numerals on 1" Wheels

SERIES 636. Same as at left, but with pushbutton mechanism for instant reset to zero. M 5-digit register. Mounts in 2.22" dia. panel hole. Unit is 3.2187" deep with 2.5" dia. round bezel. For 115 volts, 60 Hz AC. Shpg. wt. 3/4 lb.

	Stock	Mfr's	Total Count		EA	CH	
	No.	Type Total Count	1-9	10-24	25-49	50-Up	
7	765-0636 765-0638 765-0639	636.X.E100 636.X.L100 636.X.S100	9999.9 seconds 9999.9 minutes 9999.9 hours	30.05 30.05 30.05	28.50 28.50 28.50	25.50 25.50 25.50	24.00 24.00 24.00

Counters for Every Application

HAND TALLY 4-DIGIT COUNTER

Fits in Palm of Your Hand Weighs Less Than 1/4 Pound

Accurately Counts 0-9999

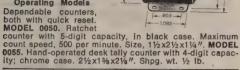
Fast pushbutton knob reset allows instantaneous, accurate "Stops" and "Starts" for every job. Large numerals can be read easily at a quick glance. Attractive polished chrome steel case resists perspiration stains and corrosion. Overall size, 17/8/x13/g". Shops. wt. 1/4 lb.

000

910-0007. Type 63-835



Ratchet or Hand-Operating Models



Stock	Mfr's		EA	CH	
No.	Type	1-9	10-24	25-49	50-Up
706-0050	0050	6.85	5.48	4.56	3.91
706-0055	0050	5.25	4.18	3.49	2.99

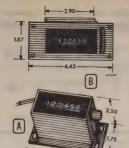


AO-610

ELECTRONIC PREDETERMINING COUNTERS

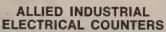
High speed solid state counters with pulse or latching relay output, automatic recycling. AC-611 Series has 7-segment LED display. Count Speed: to 5 kHz electronic Input (+3 to +48V); to 100 Hz switch Input. SPDT output contacts rated 10A, 115 VAC. Size: AC-610, 2.95x2.36x5.93"; AC-611, 3.94x2.36x6.87". *Factory fixed presignal at any number from 1 to 9999 (specify).

	HILLIAM				
Stock	Mfr's	No. of		EACH	
No.	Туре	Digits	1-9	10-24	25-Up
806-2001	AO-610-001		206.65	165.00	148.50
	AO-610-002		244.25	195.00	175.50
	AO-610-003		281.80	225.00	202.50
	AO-610-004			190.00	
	AO-610-005			220.00	
806-2006	AO-610-006	6 4*	313.00	250.00	225.00
	AO-611-001		262.20	210.00	189.00
	AO-611-002		294.35	235.00	211.50
	AO-611-003		325.65	260.00	234.00
	AO-611-004			235.00	
	AO-611-005			260.00	
806-3006	AO-611-006	4*	357.00	285.00	256.50









For a Wide Variety of Industrial Applications, Base or Panel Mount Models.

Our own electrical counters for 120 or 24 volts AC, 60 Hz operation. Available for base mounting (A in Mfr's Type No.) or panel mounting (B in Mfr's Type No.). Suffix in Mfr's Type No. indicates number of digits (402 indicates 4 digits, 501 indicates 5 digits, etc.).

PREFIX "CE40"

Well suited for a wide range of built-in applications on laboratory equipment, office machines, coin-operated machines and industrial equipment where counting duty is moderate. Reset type is available in 4-digit base or panel mount version. Non-reset type is available in 5-digit base or panel mount. Rated at 600 counts per minute; requires .050 second make and .050 second break time. Reset units count to 4 digits, set to zero with one complete turn of the knob; non-reset units count to 5 digits (99,999) and repeat. Shipping weight ½ lb.

NON-RESET TYPES

Stock	Mfr's		AC	EAC		CH	
No.	Type	Fig.	rig. V	1-9	10- 24	25- 49	50- Up
820-0034 820-0042 820-0044 820-0170	CE40AN502 CE40BN502 CE50AN502 CE50BN502 CE50AN602 CE50BN602	-FFG	120 120 120 120 120 120 120	12.30 13.45 6.75 6.75 7.45 7.45	10.76 5.40 5.40 5.96	6.56 7.17 3.60 3.60 4.35 4.35	6.72 3.38 3.38 3.74

RESET TYPES

			فلناك				
	CE40AS402	J		15.28			
820-0030	CE40BS401	K	24	17.28	14.69	13.76	12.93
820-0032	CE40BS402	K.	120	17.28	14.69	13 76	12 93
820-0046	CE59AP302	Ē	120	20.14			
820-0048	CE59AP402	Ε		20.14			
820-0050	CE59BP302	Ε	120	20.14	17.12	16.03	15.07
820-0052	CE59BP402	E		20.14			
820-0068	CE62BP402	D	120	61.75	52.61	49.27	46.40
820-0066	CE62BE402	D		78.50			
820-0070	CE900AS601	Α		24.64			
820-0072	CE900AS602	Α	120	24.64	20.98	19.65	18.91
820-0074	CE900BS601	B	24	25.30	21.55	20.18	18.97
820-0076	CE900BS602	В	120	25.30	21.55	20.18	18.97
820-0165	CE900BK602	C	120	32.56	27.74	25.98	24.42

PREFIX "CE50"

PREFIX "CE50"

Non-reset counter in base or panel mount with 5-digit or 6-digit counting. Counting speed: 600 per minute. Minimum life: 1 million counts.

U.L. listed with tamperproof enclosure; 0° to 160°F. "AN" is base mount type; "BN" is panel mount. "502" is 5-digit type; "602" is 6-digit type. Shpg. wt. ½ lb.

PREFIX "CE59"
Miniaturized pushbutton reset counters for 3-digit (302) or 4-digit (402) counting. Low power consumption, quiet operation. Rated 1000 counts per minute; 10 million count life. Minimum make and break time: 030 second. Telephone relay construction in base mount (CE59AP) or panel mount (CE59BP). Shpg. wt. 6 oz.

automatic control at specified number of counts. Predetermined number is selected by rotating "set-up" wheels (inside hinged door). When preset number is reached, an internal switch operates. Panel mount. Counts at 900 per minute; 20 million count life. Capacity: 9999. BP402 has pushbutton reset; BE402, electric reset. 3 lbs.

PREFIX "CE900"

PREFIX "CE900"
General-purpose 6-digit reset counter. Rated 1200
counts per minute; 100 million count life. Minimum make and break time: .025 second. Available as base mount in models CE900-AS601 and CE900AS602; panel mount in models CE900BS601; panel mount, key reset in CE900BK602.

PREFIX "CE59"

PREFIX "CE62" Predetermined counter for automatic control at speci-



COUNTERS



HIGH PERFORMANCE COUNTER MODULES

Electromagnetic counters with speeds up to 60 CPS. Low power consumption. Life expectancy in excess of 200 million operations. Modular design lets you select individual counter configuration. Accessories provide unlimited flexibility. When ordering, specify part number for basic counter module and accessories.

PLUG-IN TOTALIZOR. Basic counter only. Counting range 999,999 with manual pushbutton reset (electric can be added). Counter advances through half step on count pulse, spring return completes count, 100% duty cycle. Size: 984/1 960/2 747#. 44



Size: .984x1.969x2.717". Wt. 1 lb.						
Stock No.	Туре	Digits	CPS	Coil V	EACH	
806-0604 806-0606	G0404 165-4 G0404 189-1		25 10	24 DC 115 AC		

PLUG-IN SUBTRACTING PREDETERpushbutton reset to 9999 (electric can be added): Subtracts one count for each pulse. SPDT switch (max. 0.6 A at 48 VDC, 0.1 A at 125 VDC, 1.0 A at 250 VDC). 1.969x1.969x2.717".

Type

Stock No.



PLUG-IN ADDING PREDETERMINING. Basic counter only. Adds up to any preset number to 999,999. Manual pushbutton reset (electric can be added). SPDT switch (max. 0.6 A at 48 VDC, 0.1 A at 125 VDC, 1.0 A at

	ze: 1.969x1.969		1.969	2.717	
Stock No.	Туре	Digits	CPS	Coil V	EACH
806-0622 806-0624	G0422 164-4 G0422 189-1		25 25	24 DC 115 AC	63.00 68.00

BASE MOUNT MINIATURE TOTAL-IZOR. 4-digit. Count Speed 20 CP.S, DC; 10 CP.S, AC. On/Off time 25 msec. 1.181x.985x2.598".

Stock No.	Туре	Coil V	EACH
806-0657	G0856 002-3 G0856 003-3 G0856 013-1	24 DC	22.00

AUTO RECYCLING COUNTER. For 442 or 441 for automated sequential batching w/o supervision. Recycles counter for next operation within 200 ms.

Stock No.	A423-	Dig.	CPS	Volts	EACH
806-0100	130-4		25		118.00
806-0101	138-1	6	10		
806-0102	330-4	4	25		121.00
806-0103	338-1	4	10	115 AC	126.00



et box for		interchang	eability	
Stock No.	Туре	For Series	EACH	
806-0668 806-0670	G1 405 022 G1 405 025	404 422, 441	3.00 6.00	



PANEL FRAMES







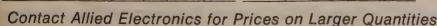
Allow counters to be panel mounted in conjunction with socket boxes, which mount on panel frame, 2.362" W.

Stock No.	Туре	For Series	Ht.	EAC
806-0663	G1 405 001 G1 405 005 G1 405 009	404 441 For combinations	1,968 2,953 3,937	4.50

ELECTRIC RESET. When remote reset is required. Attaches to rear of socket

OX. 10 /6 (
Stock No.		Volts	
806-0680 806-0682	G1 405 104 G1 405 125	24 DC 110 AC	13.50 15.00

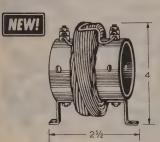




Coils and Chokes for Industry

	CHOKE, FILTER AND INDUCTOR INDEX							
FILTER CHOKES	,	COIL WINDER		ADJUSTABLE INDUCTORS				
Allied	23	3 J. W. Miller 2	230	J. W. Miller 230				
J. W. Miller	236	HYBRID/REPEAT COILS		RF INDUCTORS 238				
J. W. Miller	230) UIC/INW	200	Nytronics				
HASH FILTER CHOKES		RF COILS		POWER TRANSFORMERS				
J. W. Miller	23	J. W. Miller	231	J. W. Miller 231				

MEDIUM DUTY **DUO-LATERAL LINE FILTER CHOKES**



Duo-Lateral wound chokes combine small physical size with low distributed capacity—an essential requirement for radio interference filter chokes—and are characteristics found in no other type of radio interference filter chokes. Recommended to manufacturers of farm lighting plants, sign flashers, signal systems, oil burners, diathermy equipment and all types of intermittent switching systems. Designed for use in construction of filters for O.E.M. equipment. When used with amateur and commercial transmitters, filters constructed with Duo-Lateral wound chokes will prevent feed-back into the power line, thus eliminating carrier radiation within the electrical wiring system. Wound on ceramic forms with suitable brass terminals. Size 2½″ x 4″.

		H				EAC	H	
Stock No.	Mfr's Type	Α.	Ohms	μН	1-	10- 24	25- 49	50- Up
855-4662 855-4664 855-4666 H55-4670	7826 7827 7828 7829	5 10 15 20	.085	370 200	15.03 15.63 16.83 21.04	13.70 14.30 15.40 19.20	14.30	11.20 11.60 12.50 15.60

LIGHT DUTY **DUO-LATERAL LINE FILTER CHOKES**





					EACH					
Stock No.	Mfr's Type	Α.	Ohms	μH	1-9	10- 24	25- 49	50- Up		
855-4676 855-4678 855-4680 855-4682	7825-3 7825-5	2 3 5 8	.7 .25 .1 .05	600 250 100 50	8.55 8.10 8.10 6.85	6.84 6.48 6.48 5.48	4.85 4.75 4.75 3.89	4.25 4.00 4.00 3.39		

"COILMASTER" COIL WINDER



Easy-to-operate coil winder makes professional-looking self-supporting, universal and honeycomb coils; solenoids; single-layer coils: etc. Indicator counts turns as you wind. 3 cams and 4 gears—easily adjusts for pi spacing and different types of coil forms. For use by #22 to #40 wire. Base size, 5 x 5". Wire and coil forms not included.

559-5401. Shpg. wt. 3 lbs.......15.00

SUBMINIATURE RF CHOKES

Type 70F. Iron core chokes rated 50 mA DC, max. $\frac{1}{4}$ " long, except 10-33 μ H, $\frac{1}{6}$ "; 25-100 mH, $\frac{5}{6}$ ". †mH. Wt. 2 oz.

Carel	T		Min		EAC	Н	BUI	LK
Stock No.	Type 70-F-	μН	Q	Freq.	1- 24	25- 99	100-12 249	250- 499
855-1794 855-1882 855-1792 855-1880	106AI 336AI 105AI 335AI	1 3.3 10 33	41 40 36 50	25 MHz 7.9 MHz 7.9 MHz 2.5 MHz	1.13 1.13 1.33 1.33	.90 .90 1.06 1.06	.59	.38 .38 .44 .44
855-1790 855-1846 855-2025 855-1788	104AI 224AI 474AI 103AI	100 220 470 1.00mH+	25 46 35 30	2.5 MHz 790 kHz 790 kHz 790 kHz	1.33 1.33 1.43 1.43	1.06 1.06 1.14 1.14	.59	.44 .47 .47
855-1856 855-2020 855-1786 855-1830	253AI 473AI 102AI 182AI	2.50mH† 4.70mH† 10 mH† 18 mH†	48 49 41 49	250 kHz 150 kHz 250 kHz 79 kHz	1.55 1.55 1.90 2.03	1.24	.69	.52 .52 .63 .68
855-1862 855-1784	272AF 101AF	27 mH+ 100 mH+	61 48	79 kHz 79 kHz		1.80	1.00	.75 .95

FERRITE CORE RF CHOKES

Meet industrial standards. High permeability core permits high inductance in small size. Low DC resistance, Core: ¼" dia., 7%" long. 1½" axial leads. 2 oz.

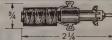
Ctook	Stock Mfr's D		Dia.	EA	H	BULK			
No.	Type	mH	Ohms	mA	In.	1-24	25- 99	100- 249	
855-3992 855-3996 855-4000 855-4004 855-4008		2.5 5 10 25 50	9.0 14 31 82 127	160 160 100 65 65	15/32 17/32 17/32 17/32 17/32 5/8	2.15 2.37 2.37	1.90		.80



PRINTED CIRCUIT RF CHOKES

Printed-circuit type mounting lugs for quick, easy soldering. Wide range of inductances, Coil forms %" long. Av. wt.

855-2692 855-2696 855-2702 855-2728	970 972 975 982	1 1.5 2.7 10	20.6 26.4 37.4 81.6	125 125 125 100	11/ ₁₆ 3/ ₄ 13/ ₁₆ 7/ ₈	3.15	1.44 2.52 1.62 2.52	.90	1.05
855-2734 855-2736 855-2750	986 987 994	22 27 100	130 145 473	75 75 50	31/ ₃₂ 11/ ₁₆ 11/ ₁₆	4.50	2.48 3.60 2.06	2.00	1.50



WIDE-RANGE **ADJUSTABLE INDUCTORS**

For constructing prototypes when inductance value is unknown. Max. dia., ¾"; length, 2¼". *µH. Wt. 3 oz.

UNTAPPED INDUCTORS

Stock	Miris	Min.	α	Max.	Q	EA	CH	BU	LK
No.	Type	mH	Min.		Min.	1-24	25- 99	100- 249	250- 499
855-4878 855-4880 855-4882 855-4884 855-4886	9001 9002 9003 9004 9005	40* .18 .57 2.10 6.00	73 72	.24 .80 2.80 8.00 16.0	220 170 110 88 105	3.25 4.73 3.77	3.78 3.02	1.28 1.43 2.10 1.68 2.16	1.58 1.26
855-4838 855-4890 855-4892 855-4894	9006 9007 9008 9009	12.0 30.0 78.0 180.0	43 43 36 20	40.0 105.0 240.0 750.0	72 76 61 41	5.05 8.78	4.04 7.02	2.40 2.24 3.90 2.36	1.68

TAPPED OSCILLATING INDUCTORS (Basic Type Refers to Listing Above)

Stock	BR Su's	Dania	Total	Tuess	EA	CH	BULK		
No.	Mfr's Type	Type	Turns t	o Tap	1- 24	25 99	100- 249	250- 499	
855-4900	9013	9003	376	128	4.73	3.78	2.10	1.58	

MOISTURE, FUNGUS-RESISTANT RF CHOKES



Phenolic construction. Resistant to fungus and moisture. Have \(\frac{4}{6}'' \) dia. x \(\frac{3}{6}'' \) long; Iron core form, \(\frac{7}{23} \times \frac{7}{6}'' \) *max.; †min. All \(\frac{1}{25} \frac{6}{6} \), except \(\frac{5}{2} \times \frac{1}{2} \) dia. F is self-resonant frequency. Wt. 2 oz.

PHENOLIC FORM - SINGLE LAYER WINDING

Caril	884-1-				DC*	A	EACH		BULK	
Stock No.	Mfr's Type	μН	†Q	MH	z Ohm:	s Max.	1- 9	10- 99	100- 249	250- 499
855-3508	4612	§10.0	36	61	1.50	500	1.02	.82	.46	.35

IRON CORE FORM - SINGLE LAYER WINDING

Stock No.	Mfr's Type	μН	†Q	†F MHz	DC* Ohms	mA Max.	1- 9	10-	8U 100- 249	250-
855-3526 855-3538		15 55	62 72	33 17	.17 1.0	1000 500			0.50 0.56	

PHENOLIC FORM - 3-SECTION WINDING

Stock No.	Mfr's Type	μΗ	†Q	†F MHz	Ohms DC°	mA Max.	EACH BULK				
									100- 249		
855-3562 855-3582		240 1000	56 59	7.2 3.7	8.5 19.0				2 . 68 4 . 80		

SHIELDED SUBMINIATURE ADJUSTABLE RF COILS



Compact adjustable coils offer a minimum two-to-one inductance range with relatively small changes in Q. Tuning adjustment is accessible from either the top or bottom of the coil assembly. Magnetic shielding is achieved through the use of cup cores while metal shield offers effective electronic shielding. Printed circuit terminals on base and shield. *Indicates inductance in millihenries, Size, ½" sq. x %" high.

Stock	Mfr's	Max. I Posit		Min. (Posit		EACH			
No.	Type	Max. μH	Min. Q	Min. μΗ	Min. Q	1- 49	50- 99	100- 249	250- Up
855-0700 855-0701 855-0702 855-0703 855-0704	9051 9052 9053	1.5 3.0 7.0 14.0 28.0	40 46 40 48 48	3.0 7.0 14.0 28.0 60.0	41 45 62 66 45	4.05 4.05 4.10 4.10 4.15		1.80 1.82 1.82	1.35 1.35 1.37 1.37 1.39
855-0705 855-0708 855-0709		60.0 650 1.3*	40 36 43	120 1.3° 3.0°	69 68 53	4.15 4.28 4.28		1.90	1.39 1.42 1.42
855-0710 855-0711 855-0712 855-0713	9060 9061 9062 9063	3.0° 8.0° 15.0° 20.0°	32 35 25 36	10.0° 20.0° 40.0° 60.0°	32 38 40 60	6.13 4.70 4.70 4.85		2.09	2.04 1.57 1.57 1.62

Coils, Chokes and Miniature Molded Coils

RF COILS

Wound on silicon-impregnated co-ramic forms to reduce moisture absorption. Tuned by powdered-iron core. STANDARD. High "Q" with large inductance range. Mount-ing bushing requires ¼" dia. hole, ¾" dia., 1¼6" long. Wt. 2 oz.



Stock	Mfr's Type	Ind	., μΗ	EA	CH	BU	BULK		
No.		Min.	Max.	1-	25- 99	100- 249	250- Up		
855-3278 855-3279	4403 4404	.99 1.6	1.5 3.1	5.28 6.30	4.22 5.04	2.34 2.80	1.76 2.10		
855-3288 855-3298	4408 4414	33.0 1400	66.0 2000	6.30 6.75	5.04 5.40	2.80 3.00	2.18 2.25		

MINIATURE. Same high-quality coils as above, but for limited-space applications. Mount in $\%_6''$ dia. hole. Size: $\%_4''$ dia. \times $\%_6''$ long. With hardware. Av. wt. 2 oz.

Stock	Mfr's	Ind.,	EA	CH	BULK		
No.	Type	Min.	Max.	1-	25- 99	100- 249	250- Up
855-3334	4505	5.5	8.6	4.85	3.88	2.16	1.62

RF POWER TRANSFORMER

Type 4526. Used with RF oscillator and 1B3 rectifier for high-voltage power supply. Provides up to 10,000 V DC (to 30,000 V in rectifier-tripler circuit). Simple R-C filter gives low ripple output. Schematic. 6 x 2½" dia. Shpg. wt. 2½ oz.

855-3364 Each 22.00



HASH FILTER CHOKES

Effectively eliminate arcing or vibration interference. Molded, powdered iron form. Wt. 2 oz.



			Max	EACH						
Stock No.	Mfr's Type	μH ±20%	DC Ohms	1- 24	25- 99	100- 249	250- Up			
855-3628 855-4620 855-3632 855-4624 855-3640	5218 5219 5220 5230 5240	3.35 4.9 8.8 4.0 40.0	.010 .016 .021 .012 .082	2.77 2.78 2.25 2.08 1.97	2.22 2.22 1.80 1.66 1.58	1.23 1.23 1.00 .92 .88	.92 .92 .75 .69			
855-3642 855-3644 855-4630 855-4634 855-4638	5248 5250 5252 5254 5256	68.0 100.0 125.0 250.0 500.0	.054 .216 .080 .170 .260	2.25 2.25 2.98 2.98 2.98	1.80 1.80 2.38 2.38 2.38	1.00 1.00 1.32 1.32 1.32	.75 .75 .99 .99			

DECI-DUCTOR SUBMINIATURE RF INDUCTORS

Epoxy molded, unshielded, with extreme inductance-to-size ratio. Designed to meet all environmental require-ments of MIL-C-15305C, Grade 1, (resistance to moisture and immersion), Class B (oper. temp.) from -55° to +125°C. Vibration, shock resistant. Operates to 70,000 ft. Tolerance, ±10%. Size, ¼" long x 1/16" diameter. #24 leads. Av. shpg. wt. per hundred, 3 oz.

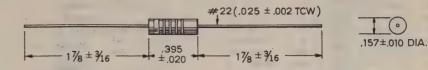
Inductance	EACH								
μН	1-24	25-49	50-99	100-Up					
Values 0.1-1 Values 1.2-27 Values 33-100	1.94 2.15 2.26	1.55 1.72 1.81	.92 1.03 1.07	.71 .78 .83					
Values 150-1000	2.36	1.89	1.12	.87					

Stock No.	Type DD-	ind.	O M	@ Hz
871-2000 871-2020 871-2030 871-2035	.10 .22 .33 .39	.10 .22 .33 .39	40 35 32 32	25 25 25 25 25
871-2040	.47	.56	32	25
871-2050 871-2055 871-2060 871-2065	.68 .82 1.00 1.20	.68 .82 1.00 1.20	33 30 30 30	25 25 25 25 7.9
871-2070 871-2075 871-2080 871-2090 871-2095	1.50 1.80 2.20 3.30 3.90	1.50 1.80 2.20 3.30 3.90	32 35 35 45 45	7.9 7.9 7.9 7.9 7.9 7.9
871-2105 871-2110 871-2130 871-2145	5.60 6.80 15.0 27.0	5.60 6.80 15.0 27.0	52 52 47 50	7.9 7.9 2.5 2.5
871-2160 871-2170 871-2180 871-2190 871-2200	47.0 68.0 100 150 220	47.0 68.0 100 150 220	50 52 50 28 26	2.5 2.5 2.5 0.79 0.79
871-2220 871-2230	470 1000	470 1000	27 28	0.79 0.79

MS-90537 "SUPER-WEE-DUCTOR" SUBMINIATURE SHIELDED RF INDUCTORS

- Only 0.410" x 0.162"
- Epoxy Molded and Shielded
- Low DC Resistance

- Meet MIL-C-15305C
- Less than 3% Coupling
- Tolerance: ±10%



Epoxy molded and shielded for minimum coupling in high-density package. Meet electrical and environmental requirements of MIL-C-15305C, Grade 1 (resistance to moisture and immersion), Class B (-55° to +125° C). For altitudes up to 70,000 feet. Tolerance: ±10%. Less than 3% coupling. Low DC resistance. Dielectric strength: 700 V rms. Size: 0.162" dia. x .410" long. AWG #22 leads, 1.31" minimum; internal T termination. Av. shpg. wt. per 100, 31/2 oz.

Inductance	EACH							
μΗ	1-24	25-49	50-99	100-Up				
Valus .15-10 Values 22-6800 Values 10k-100k	1.68 2.34 3.00	1.34 1.87 2.70	1.07 1.50 2.16	.86 1.20 1.73				

Old MIL Number	New MIL Number	Stock No.	Ind. μH	a	@ MHz
MS-90537-3	MS-75087-3	871-3010	.15	51	25
MS-90537-5	MS-75087-5	871-3020	.22	49	25
MS-90537-7	MS-75087-7	871-3030	.33	46	25
MS-90537-11	MS-75087-11	871-3050	.68	42	25
WO-30337-11	10-75007-11	071-3030	.00	72	
MS-90537-13	MS-75088-1	871-3060	1.0	47	25
MS-90537-14	MS-75088-2	871-3065	1.2	46	7.9
MS-90537-15	MS-75088-3	871-3070	1.5	45	7.9
MS-90537-17	MS-75088-5	871-3080	2.2	45	7.9
MS-90537-19	MS-75088-7	871-3090	3.3	44	7.9
MS-90537-21	MS-75088-9	871-3110	4.7	44	7.9
MS-90537-22	MS-75088-10	871-3115	5.6	47	7.9
MS-90537-23	MS-75088-11	871-3120	6.8	50	7.9
MS-90537-25	MS-75088-13	871-3130	10	49	7.9
MS-90537-29	MS-75089-3	871-3150	22	46	2.5
MS-90537-30	MS-75089-4	871-3155	27	49	2.5
MS-90537-31	MS-75089-5	871-3160	33	45	2.5
MS-90537-33	MS-75089-7	871-3170	47	52	2.5
MS-90537-34	MS-75089-8	871-3175	56	49	2.5
			-		
MS-90537-35	MS-75089-9	871-3180	68	51	2.5
MS-90537-36	MS-75089-10	871-3185	82	45	2.5
MS-90537-37	MS-75089-11	871-3200	100	52	2.5
MS-90537-39	MS-75089-13	871-3190	150	56	.79
MS-90537-41	MS-75089-15	871-3210	220	58	.79
MS-90537-42	MS-75089-16	871-3215	270	60	.79
MS-90537-43	MS-75089-17	871-3220	330	54	.79
MS-90537-45	MS-75089-19	871-3230	470	60	.79
MS-90537-46	MS-75089-20	871-3235	560	60	.79
MS-90537-47	MS-75089-21	871-3240	680	60	.79
MS-90537-49	MS-75089-23	871-3250	1000	65	.79
MS-90536-53	MS-75089-27	871-3270	2200	50	.25
MS-90537-55	MS-75089-29	871-3280	3300	43	.25
1110 00007 00	100 70000-20	071-3200	0000	40	
MS-90537-57	MS-75089-31	871-3290	4700	44	.25
MS-90537-59	MS-75089-33	871-3300	6800	43	.25
MS-90537-61	MS-75089-35	871-3310	10,000	39	.25
MS-90537-63	MS-75089-37	871-3320	15,000	31	.079
MS-90537-65	MS-75089-39	871-3330	22,000	27	.079
MS-90537-67	MS-75089-41	871-3340	33,000	27	.079
MS-90537-71	MS-75089-45	871-3360	68,000	23	.079
MS-90537-72	MS-75089-46	871-3380	82.000	21	.079
MS-90537-73	MS-75089-47	871-3390	100.000	18	.079

For fast service on your order, contact your nearest Allied Electronics office. Complete list of addresses and phone numbers on Page 3.

INDEX TO TRANSFORMERS AND POWER SUPPLIES AUDIO UTC/TRW 234 UTC/TRW 241 Allied 236 FILTER CHOKE Epsco 248 MATCHING Essex/Stancor 236 Allied 238 UTC/TRW 235 Nucleonic 249 Triad 236 * J. W. Miller 230 RCA 247 OSCILLOSCOPE " UTC/TRW 235 Allied 239 AUTO HIGH VOLTAGE PACK Sounolier 247 Stancor 237 Allied ..., 242 Plastic Cap 248 Staco 243 INDUCTOR 233, 236 Triad 241 PLATE CONSTANT VOLTAGE Nytronics231 RECTIFIER Triad 239 Allied 239, 240 Sola 244 TRW/UTC239 Stancor 237 CONTROL Allied 233, 236 POWER Triad 239 Allied 242 INTERSTAGE Allied 233, 239, 240 TRANSCEIVER Essex/Stancor 241 Allied 233, 236 J. W. Miller231 Allied236 Sola 241 INVERTERS TRANSISTOR 247 Triad 239 Allied 233 Nucleonic 249 POWER CONTROLS UTC/TRW 233-235 Allied 234 ISOLATION VARIABLE Essex/Stancor 235 POWER REGULATORS Allied 242 Allied 242 Stancor 237 Essex/Stancor 241 Wanlass 243 Triad 234, 235 Triad 241 POWER SUPPLIES Superior 245

	Merit Type Number	Allied Type Number	Stancor Type Number	Allied Type Number	Stancor Type Number	Allied Type Number	Stancor Type Number	Allied Type Number	Thordarson Type Number	Allied Type Number	Thordarson Type Number	Allied Type Number	Triad Type Number	Allied Type ; Number	Triad Type Number	Allied Type Number
	A2747 A2751 A2759 A2761 A2781	6T24HF 6T3HF 6T19PC 6T38HF 6T17PC	PS8415 PS8416 RT201 RT202 RT204	6K27VF 6K1VF 6K63VBR 6K64VBR 6K65VBR	TA-41 TA-42 TA-44 TA-45 TA-46	6T37HF 6T38HF 6T40HF 6T41HF 6T20HF	P6139 P6141 P6308 P6309 P6375	6K76VBR 6K15VCP 6K34VBR 6K72VBR 6K77VFL	21F21 21F25 21F27 21F28 21F31	6K32HF 6K72VBR 6K48HF 6K76VBR 6K47VF	23V21 23V22 23V24 23V45 23V48	6K22VCP 6K13VCP 6K15VCP 6K38VCP 6K18VCP	C27X C40X C47U C48U F1X	6X35HF 6X34HF 6X33VBR 6X32VBR 6K86HF	S-3X S-12X S-17X S-47Z S-51X	6W35HF 6W33HF 6W52HF 6W28VFL 6W14HFL
	A2805 A2806 A2900 A2901 A2930	6W38HFL 6W39HFL 6W14HFL 6W15HFL 6W35HF	RT206 RT208 TP-1 TP-2 TP-3	6K66VBR 6K67VBR 6K133VG 6K101HF 6K102HF	TA-47 TA-52 TA-56 TA-57 TA-59	6T45HF 6T48HF 6T51VF 6T52VF 6T54HF	P6376 P6377 P6378 P6379 P6410	6K78VFL 6K79VFL 6K80VBR 6K119VBR 6K38VCP	21F32 21F41 21F42 21F45 21F51	6K33VG 6K57VG 6K90VG 6K73VBR 6K37HF	23V50 23V51 23V52 23V53 23V58	6K77VFL 6K78VFL 6K79VFL 6K80VBR 6K19VCP	F3X F5U F7X F8X F13X	6K87HF 6K84VBR 6K39HF 6K11HF 6K32HF	S-53X TY-45X TY-49X TY-61X TY-63X	6W 15HFL 6T38HF 6T8HF 6T3HF 6T24HF
	A2936 A3005 A3013 A3014 A3015	6W52HF 6W29HFL 6W2HFL 6W4HFL 6W5VFL	TA-1 TA-2 TA-4 TA-7 TA-11	6T42HF 6T6HF 6T8HF 6T3HF 6T24HF	A3304 A3332 A3823 A3877 A3879	6W70VG 6W33HF 6W15HFL 6W35HF 6W52HF	P6415 P6425 P6432 P6433 P6454	6K81VCP 6K82VF 6K62VBR 6K120VBR 6K121VF	21F58: 21F60 21F61 21F72 21F77	6K84VBR 6K11HF 6K75VBR 6K26VF 6K93VG	23V60 23V61 23V62 23V63 23V64	6K63VBR 6K64VBR 6K65VBR 6K66VBR 6K67VBR	F14X F16X F18A F22A F23U	6K35HF 6K10HF 6K90VG 6K93VG 6K75VBR	UTC Type Number	Allied Type Number
	A3016 A3025 A3026 C2975 C2976	6W6HFL 6W11HF 6W10HF 6X5HF 6X6HF	TA-12 TA-21 TA-22 TA-23 TA-24	6T25HF 6T28PC 6T10PC 6T29PC 6T11PC	A3883 A4713 A4744 A8101 A8102	6W30VHL 6W68HF 6W55HF 6W29HFL 6W28VFL	P6456 P6458 P6461 P6462	6K26VF 6K122VBR 6K123VG 6K124VF	21F81 21F82 21F83 21F93 21F107	6K95HF 6K89HF 6K96HF 6K87HF 6K71VBR	23V72 23V73 23V79 23V81 23V100	6K14VCP 6K20VCP 6K69HF 6K12VCP 6K105VBR	F25X F26X F29U F34A F40X	6K94HF 6K95HF 6K134VBR 6K136VG 6K89HF	A-28 CG-32 CG-34 CG-35 CG-40	6T24HF 6K35HF 6K87HF 6K90VG 6X37VG
	C2977 C2981 C2987 C2993 C2994	6X7HF 6X3HF 6X1HF 6X4HF 6X9HF	TA-28 TA-30 TA-31 TA-35 TA-36	6T46PC 6T13PC 6T14PC 6T17PC 6T18PC	A8104 A8105 C1001 C1003 C1080	6W45VFL 6W2HFL 6X4HF 6X1HF 6X7HF	P6465 P6466 P6467 P6469	6K32HF 6K10HF 6K39HF 6K37HF	21F120 26F60 26F67 22R02 22R02 22R02U	6K86HF 6K83HF 6K36HF 6K42HB 6K42VG	23V101 23V103 23V104 23V105 23V115	6K106VBR 6K107VBR 6K108VBR 6K109VBR 6K100HF	F41X F44X F45X F47U F48U	6K96HF 6K36HF 6K113HF 6K105VBR 6K106VBR	CG-100 CG-124 CG-125 FT-1 FT-2	6X37VG 6K134VBR 6K134VBR 6K86HF 6K35HF
۱	P2843 P2871 P2893 P2939 P2941	6K1VF 6K28HF 6K53VG 6K47VF 6K11HF	P8130 P8190 P8191 P8193 P8196	6K36HF 6K83HF 6K128HF 6K106VBR 6K129VG	C1279 C1421 C1706 C1707 C1709	6X3HF 6X21VG 6X5HF 6X6HF 6X15HF	Type Number	on Allied Allied Number	22R05U 22R07U 24R00 24R01U 24R02U	6K44VG 6K46VG 6K2HB 6K3VG 6K54VG	23V116 23V117 23V118 23V119 23V120	6K101HF 6K102HF 6K103HF 6K104VG 6K21VCP	F52X F60U F61U F67U F72Z	6K83HF 6K107VBR 6K108VBR 6K109VBR 6K47VF	FT-4 FT-5 FT-6 R-14 R-15	6K10HF 6K87HF 6K39HF 6X3HF 6X3HF
	P2944 P2946 P2947 P2948 P2949	6K9HF 6K10HF 6K26VBR 6K34VBR 6K2HB	P8357 P8358 PA8421 PC8305	6K96HF 6K110HF 6K28HF 6K130VG	C2303 C2327 C2343 C2346	6X24HF 6X9HF 6X35HF 6X25HF	20A04 20C00 20C01 20C03 20C06	6W55HF 6X29HBR 6X30HBR 6X31HBR 6X38HF	24R03U 24R04 24R05U 24R06U 24R07U	6K30VG 6K5HB 6K6VG 6K7VG 6K8VG	TR-1 TR-2 TR-3 TR-4 TR-5	6T48HF 6T13PC 6T14PC 6T46PC 6T19PC	F90X F91X F92X F93X F94X	6K101HF 6K102HF 6K104VG 6K103HF 6K100HF	R-16 R-17 R-18 R-20 R-38A	6X3HF 6X1HF 6X15HF 6X36HF 6W15HFL
-	P2951 P2952 P2953 P2959 P2962	6K4HB 6K5HB 6K6HB 6K36HF 6K37HF	PC8403 PC8404 PC8405 PC8406 PC8408	6K53VG 6K53VG 6K29VG 6K56VG 6K3VG 6K54VG	C2685 C2686 C2687 C2688 C2689	6X29HBR 6X30HBR 6X41HBR 6X31HBR 6X42HBR	20C14 20C25 20C47 20C51 20C54	6X36HF 6X33VBR 6X5HF 6X25HF 6X21VG	24R09U 24R11 24R11U 24R12U 24R17	6K53VG 6K49HB 6K49VG 6K51VG 6K4HB	TR-6 TR-7 TR-11 TR-26 TR-60	6T18PC 6T17PC 6T10PC 6T11PC 6T51VF	N1X N3M N4M N5M N11M	6K69HF 6K12VCP 6K13VCP 6K14VCP 6K21VCP	R-41 R-42 R-43 R-44 R-45	6K12VCP 6K13VCP 6K13VCP 6K14VCP 6K15VCP
Ī	P2964 P3040 P3042 P3074 P3095	6K32HF 6K39HF 6K84VBR 6K35HF 6K31VG	PC8410 PC8411 PC8411 PC8413	6K6VG 6K7VG 6K8VG 6K30VG	C2690 C2704 C2705 C2707 C2708	6X33VBR 6X43HF 6X37VG 6X44HF 6X34HF	20C81 20C82 20C84 26C41 26C45	6X3HF 6X7HF 6X6HF 6X9HF 6X37VG	24R27 24R50	6K50VG 6K56VG 6K31VG 6K88VG 6K82VF	TR-63 TR-66 TR-102 TR-103 TR-114	6T52VF 6T54HF 6T28PC 6T29PC 6T38HF	N51X N54M N55M N68X R4A	6K112HF 6K139VCP 6K19VCP 6K140HF 6K88VG	R-46 R-55 R-58 R-64 R-72	6K20VCP 6X5HF 6W14HFL 6K21VCP 6K112HF
-	P3147 P3148 P3150 P3151	6K49VG 6K29VG 6K3VG 6K4VG	PC8414 PC8418 PC8419 PC8420 PM8401	6K31VG 6K49VG 6K51VG 6K55VG 6K2HB	P3060 P3062 P3064 P4019 P4089	6K84VBR 6K11HF 6K26VBR 6K57VG 6K90VG	26C77 26C81 26C85 26C87 26C88	6X35HG 6X34HF 6X4HF 6X1HF 6X24HF	26R38 26R39 24S04	6K55VG 6K28HF 6K1VF 6W14HFL 6W15HFL	TR-196 TR-295 TR-296 TR-300	6T24HF 6T42HF 6T6HF 6T25HF	R5A R6B R8A R11B R14A	6K142VG 6K2HB 6K53VG 6K5HB 6K56VG	R-72 R-74 R-101 R-102 R-103	6K38VCP 6K19VCP 6K2HB 6K5HB 6K5HB
-	P3153 P3155 P3160 P3161 P3162	6K8VG 6K54VG 6K12VCP 6K13VCP	PM8403 PM8409 PM8410 PM8412 PM8414	6K53HB 6K5HB 6K6HB 6K8HB 6K31HB	P5014 P5015 P5016 P5062 P5063	6K71VBR 6K73VBR 6K75VBR 6K12VCP 6K22VCP	20D23 21F03 21F07 21F08	6W68HF 6K39HF 6K62VBR 6K9HF	24S51 24S52 24S53	6W44HFL 6W35HF 6W52HF 6W33HF 6W14HFL	Triad Type Number	Allied Type Number 6W77HF	R29A R30X R54X	6K46VG 6K111VG 6K28HF 6K143HF	R-104 R-112 R-112 R-113 S-26	6K6HB 6K56VG 6K6HB 6K46VG 6X3HF
-	P3163 P3164 P3173	6K14VCP 6K15VCP 6K7VG	PM8419 PM8422	6K49HB 6K51HB 6K45HB	P6124 P6133	6K20VCP 6K47VF	21F10 21F10 21F11	6K35HF 6K10HF 6K26VBR	24S61 24S71	6W15HFL 6W28VFL 6W2HFL	C3X C4X C7X C8X	6X3HF 6X5HF 6X38HF 6X15HF	R68A R73B R106A	6K144VG 6K146HB 6K50VG	S-31 S-53 S-54 S-55	6X36HF 6K87HF 6K11HF 6K10HF
	P3177 P3198 P3199	6K81VCP 6K18VCP 6K19VCP	TA-38 TA-39 TA-40	6T19PC 6T35HF 6T36HF	P6134 P6135 P6138	6K35HF 6K70VBR 6K74VBR	21F12 21F13 21F16	6K34VBR 6K70VBR 6K74VBR	24898	6W29HFL 6W52HF 6K81VCP	C9X C14X C16A	6X24HF 6X36HF 6X37VG	R113A R114A R114B R121A	6K3VG 6K6VG 6K6HB 6K8VG	S-62 SO-8 SO-9	6K134VBR 6T17PC 6T28PC

NOTE: This cross-reference lists transformers from various manufacturers for which ALLIED has an equivalent unit—or one reasonably close. There may be slight differences in electrical characteristics or

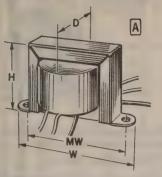
physical dimensions or both. Always refer to the specifications listed in the appropriate table when selecting a replacement transformer for your particular need.

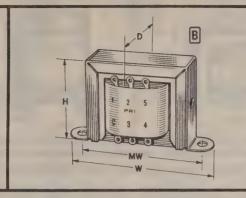
Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B.

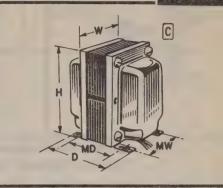
Chicago, Illinois. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or simply contact your nearest Allied Electronics' facility.



TRANSFORMERS







TRANSISTOR INPUT, OUTPUT, INTERSTAGE, DRIVER AND POWER TYPES

INPUT TRANSFORMERS

			Impeda	nce, Ohms	Res.	Ohms	1 1 1 1 1	Size	Mtg. Ctrs.		EACH		Bulk Packed
Stock No.	Mfr's Type	Fig.	Pri.	Sec.	Pri.	Sec.	Watts	H x W x D Inches	(MW x MD) Inches	1- 9	10- 49	50- 99	100- Up
705-0541	6T42HF	В	600 CT	10	42	.8	.050	13/16X15/8X3/4	13/8	4.11	3.71	3.08	2.57
					(OUTPUT	TRANSFOR	MERS					
705-0527 705-0528 705-0537	6T28PC 6T29PC 6T38HF	A A B	500 CT 600 CT 500 CT	4, 8, 16 4, 8, 16 4, 8, 16	75.3 73.2 47	3.55 3.2 .85	.150 .150 .300	21/32X13/16X8/16 21/32X13/16X8/16 13/16X15/6X3/4	25/32 25/32 13/8	4.75 4.67 4.59	4.28 4.21 4.13	3.85 3.51 3.44	2.90 2.85 2.80
705-0523 705-0524 705-0548 705-0549	6T24HF 6T25HF 6T51VF 6T52VF	B B B	48 CT 20 CT 48 CT 100 CT	8, 16 8 3.2, 8, 16 3.2, 8, 16	5 .55 3.6 6.6	1.5 .35 1.4 1.5	5 10 10 10	2x35/16x13/4 17/16x23/8x13/4 25/16x27/6x2 25/16x27/6x2	2 ¹³ /16 2 2 ³ /8 2 ³ /8	5.06 3.33 4.11 4.35	4.56 2.99 3.71 3.91	3.80 2.50 3.09 3.27	3.09 2.03 2.64 2.65
INTERSTAGE TRANSFORMERS													
705-0508 705-0510 705-0511 705-0544 705-0513	6T8HF 6T10PC 6T11PC 6T46PC 6T13PC	B A A	500 CT 500 CT 500 CT 1500 5K CT	5K CT 50 50K 50K 500 CT 7500 CT	37 59.7 76.8 104 650	250 7.9 5135 46.5 790	1.0 .150 .150 .150 .150	17/16X23/6X13/6 21/32X13/16X3/16 21/32X13/16X3/16 21/32X13/16X3/16 21/32X13/16X3/16	2 25/32 25/32 25/32 25/32 25/32	4.27 4.11 4.35 5.06 4.91	3.50 3.71 3.91 4.56 4.42	3.20 3.09 3.27 3.80 3.69	2.42 2.64 2.79 3.09 2.99
705-0514 705-0517 705-0518 705-0519	6T14PC 6T17PC 6T18PC 6T19PC	A A A	5K CT 10K 10K 500 CT	10K CT 2K CT 3K CT 150 CT	635 1200 1200 62	1100 257 385 21.2	.150 .150 .150 .150	21/32X13/16X5/16 21/32X13/16X5/16 21/32X13/16X5/16 21/32X13/16X5/16	25/ ₃₂ 25/ ₃₂ 25/ ₃₂ 25/ ₃₂	4.75 4.35 4.59 4.35	4.28 3.91 4.13 3.91	3.56 3.27 3.44 3.27	2.90 2.79 2.80 2.75
705-0506 705-0545	6T6HF 6T48HF	B B	100 CT 500 CT	10 CT 500 CT	4.3 40	55.8	.250 .300	11/4x11/1ex13/8 13/1ex15/6x3/4	1¾ 1¾	3.48 4.91	2.96 4.42	2.78 3.69	1.53 2.99
					TRANS	ISTOR DI	RIVER TRA	NSFORMERS					
705-0551 705-0503	6T54HF 6T3HF	B	500 CT 100	200 CT 100 CT	36.5 9	15.5 10.8	.500 .500	1½x2½1ex1¼ 1½1ex2½16x1¾	1 ³ / ₄ 2 ³ / ₈	3.64 3.33	3.28	2.73 2.50	2.22 2.03
					TDANC	CTOP DO	WED TO	NCEODMEDS					

TRANSISTOR POWER TRANSFORMERS

Primaries for 117 V, 60 Hz AC. * For bridge rectifier-identical dual plate supplies.

Stock	Mfr's Fig. Plate Supply		Supply	Size H x W x D	Mtg. Ctrs.		Bulk Packed			
No.	Type	rig.	AC V	DC mA	Inches	Inches	1-9	10-49	50-99	100-Up
705-0158 705-0154	6K 133VG 6K 129VG	C	13 or 18* 80 CT	900 1200	3½x2½x2¹½6 3½x2¹¾6x3¾6	2x1 ¹⁵ /18 2½x2¾	8.62 11.83	6.90 9.46	5.75 8.86	4.59 5.56



SCR TRANSFORMERS

Balanced pulse, efficient energy transfer, fast pulse rise-time and increased current capabilities. Prevents SCR di/dt failure. Temp. range: -40° to +150°. Max. line voltage: 1600V rms, 60 Hz AC. Shpg. wt: 1 oz.

D TRIGATE PULSE-RIGID LEADS

***************************************	T		Min.	Max.		EACH		
Stock No.	Mfr's Type	Turns Ratio		L. μH	1-	15- 49	50- Up	
926-902 926-902	11Z-2000 11Z-2001 11Z-2004 11Z-2100	1:1	200 1000 5000 200	3 12 1500 3	3.96 4.32	2.89 3.03 3.30 3.44	1.98	

E FLEXIBLE LEADS

926-9012 926-9013 926-9014	112-13	1:	200 200 1000	3	2.10 2.45 2.98	1.93	1.26
926-9014 926-9016					3.15		

TRANSISTOR TRANSFORMERS SERIES DO-T



Subminiature transformers for applications where space is critical. %" dia. x ½"," h. Hermetically sealed. Exceed MIL-T-27B, Grade 4 requirements. Turns are circular to eliminate turn corner stress and provide uniform wire lay. Bobbins of units are completely rigid. 1½" leads of plastic insulated copper. DO-T9: center tapped secondary. DO-T92: center tapped primary. Average shipping weight: 1 ounce.

	Mfr's		EA	CH			
Stock No.	Type DO-	Application	Pri. Ohms	Secondary Ohms	1-	5- Up	
964-200 964-202 964-202 964-203	9 T9 2 T22	Hipermalloy sh	10k-12k 1.5k CT	500-600 CT 600	13.36	11.78 10.69	
		DO-T units			3.08	2.46	



TRANSISTOR INVERTER TRANSFORMER

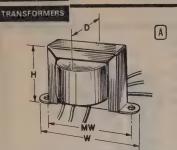
Transistor inverter transformer hermetically sealed to MIL-T-27B requirements. Winding/coupling method greatly reduces transitory peaks. DC output shown is for 12/14 or 24/48 volt battery. Currents ratings are the same with 6/7 volt battery but the output voltage is halved. Optimum results are obtained at 1000 Hz. Size: 1% x 1% x 2%". Shpg. wt: 1½ oz.

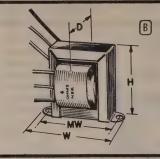
Stock	Mfr's	DC Output		EACH			
No.	Type	٧	mA	1-4	5-9	10-Up	
964-3098	H-98	375	100	43.29	34.63	31.17	

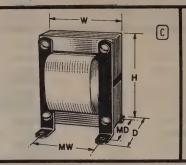
Allied® Filament Transformers

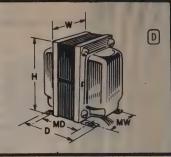
Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B. Chicago, Illinois. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or simply contact your nearest Allied Electronics facility.











Allied's own line of top-quality transformers. Compare prices and specs-you're money ahead with Allied transformers. Send us your specifications—let Allied handle your transformer needs.

Quality filament transformers provide reliable operation in a variety of applications. to produce lower voltages. Types with * have primary tap for 107-volt operation. Types

Stock	Mfr's	Fig.	Volts	Amps	Insul.,	Size HxWxD	Mtg. Ctrs.		EACH		Bulk Packed
No.	Туре	rig.	VOICS	Amps	rms V	Inches	Inches	1-9	10-49	50-99	100-Up
705-0110	6K86HF	A	2.5 CT	3.0	1500	111/16x213/16x17/8	23/8	4.75	3.80	3.14	2.75
705-0064	6K47VF	В	2.5 CT	5.0	5000	2½x3½x2½	213/16	8.78	7.02	4.95	4.50 3.50
705-0146	6K121VF	B*	2.5 CT	10.0	7500	31/8×31/16×3	31/8	8.33	6.66 6.85	4.50 6.08	4.87
705-0043	6K33VG	C	2.5 CT	10.0	2500	3 ³ / ₁₆ x2 ⁵ / ₈ x2 ¹ / ₁₆	2x111/16	7.87			4.50
705-0111 705-0108	6K87HF 6K84VBR	A D	2.5 CT 2.5 CT	10.0 10.0	3000 10,000	2%x2%x2% 3%x2%x2½	3½ 2½x1½	7.80 9.50	6.25 8.55	5.20 7.70	5.80
705-0108	6K39HF	Ā	5.0 CT	3.0	2500	2x3½x2	2/4X1/8 2 ¹³ / ₁₈	5.97	4.77	3.22	2.50
705-0043	6K11HF	Â	5.0 CT	6.0	2500	2%x3%x21/4	31/8	6.57	5.92	4.93	4.00
705-0094	6K70VBR	D ·	5.0 CT	10.0	2500	31/8×21/2×3	2x3%	11.47	9.18	6.20	4.82
705-0145	6K120VBR	D	5.0 CT	15.0	2500	3x2½x3	2x2½	9.77	8.78	7.90	6.15
705-0086	6K62VBR	D	5.0 CT	21.0	2500	3¾x3½x3¼	2½x2¼	11.70	9.36	6.32	4.89
705-0042	6K32HF	Α	6.3 CT	6.0	1500	13/8x23/8x15/8	2	4.50	3.60	2.43	1.89
705-0016	6K9HF	A	6.3 CT	1.0	1500	15/8x213/16x13/4	2%	3.04	2.74	2.43	1.75
705-0045	6K35HF	A °	6.3 CT	1.2	3000	15/8x213/16x17/8	23/8	4.39	3.51	2.27	1.85
705-0107	6K83HF	A	6.3	1.2	5000	2x31/4x11/8	213/16	6.19	4.95	3.34	2.60
705-0153	6K128HF	A§	6.3	1.2	5000	2x3½x1 15/16	213/16	4.35	3.91	3.27	2.65
705-0161	6K136VG	С	6.3†	1.75	1500	31/8x25/8x31/18	2x21/8	9.64	8.68	7.27	6.83
705-0017	6K10HF	A	6.3 CT	3.0	2500	2x3½x2¾	213/16	6.42	5.13	4.46	2.69 4.50
705-0095 705-0149	6K71VBR 6K124VF	D‡ B*	6.3 CT 6.3	3.0 3.0	2500 ° 7000	31/8x21/2x23/8 31/8x33/16x23/4	2x1¾ 3½	9.00	7.20 5.13	4.86 4.62	4.00
705-0145	6K57VG	C‡*	6.3 CT	4.0	2500	3%16X2%X2 ¹ / ₁₆	2x1 ¹ / _{1s}	5.70 7.68	6.91	5.76	4.68
705-0115	6K90VG	C	6.3 CT	6.0	1500	31/8x25/8x23/4	2x13/4	9.18	8.27	6.89	5.60
705-0032	6K26VF	В	6.3 CT	6.0	2000	31/8x38/16x21/2	31/8	9.34	7.47	5.05	3.92
705-0033	6K26VBR	D	6.3 CT	6.0	2500	3x2½x2¼	2x2	10.68	8.55	6.00	5.40
705-0044	6K34VBR	D*	6.3 CT	10.0	2500	33/8x213/16x27/8	21/4x21/8	10.30	9.27	8.02	6.28
705-0120	6K93VG	C	6.3 CT	20.0	2000	31/8x35/16x41/8	2½x3	18.62	15.70	10.70	8.73
705-0096	6K72VBR	D‡*	6.3 CT .	20.0	2500	4%x3%x2%	3x23/8	13.53	12.15	10.93	8.51
705-0097	6K73VBR	D‡	7.5 CT	4.0	2500	31/8x21/2x211/16	2x21/8	12.38	9.90	6.68	5.20
705-0098 705-0099	6K74VBR 6K75VBR	D‡ D‡	7.5 CT 10.0 CT	8.0 4.0	2500 2500	33/8 x 31/8 x 21/8 33/8 x 213/1 e x 23/4	2½x2¼	9.98	8.98	7.49 6.81	6.09 5.31
705-0055	6K122VBR	D‡*	10.0 CT	5.0	2000	378XZ 716XZ74 3x2½x4¾	2½x2½ 2x2½	12.60 11.70	10.08 9.36	6.32	4.91
705-0100	6K76VBR	D‡	10.0 CT	8.0	2500	33/4x31/8x3	2½x2¾	9.98	8.71	7.25	7.25
705-0148	6K123VG	С	10.0 CT	10.0	2000	31/8×31/4×31/4	2½x2½	12.78	11.32	10.69	10.06
705-0159	6K134VBR	D**	12-11-10 CT	11.0	3000	41/8x37/16x31/8	23/4×21/2	15.53	13.98	11.70	11.00
705-0121	6K94HF	A	12.6 CT	1.5	1500	2x31/4x2	213/16	6.15	4.95	4.10	3.40
705-0046	6K36HF	A	12.6 CT	2.0	1500	2x31/4x21/4	213/16	5.98	4.77	3.22	2.64
705-0122	6K95HF	A	12.6 CT	2.5	1500	21/4x35/8x21/4	31/8	8.75	7.00	5.85	4.60
705-0136 705-0139	6K110HF 6K113HF	A	12.6 CT 24.0 CT	3.0	1500	25/16X311/16X23/8	31/8	6.75	5.40	3.60	2.85 3.40
705-0047	6K37HF	A		1.0	1500	2x3¼x2	213/16	6.80	5.45	4.55	
705-0047	6K96HF	A	25.2 25.2 CT	1.0	1500 1500	2x3¼x2½ 25/x4x2¾	213/16	5.63	4.50 6.84	3.04 4.62	2.85 3.59
705-0125	6K48HF	A	26.5 CT	0.6	3000	2%x4x2% 2x3¼x2	38/18 213/18	8.55 4.57	3.86	3.55	2.82
705-0114	6K89HF	Â	26.8 CT	1.0	1500	2x3¼x2½	213/16	8.07	6.46	4.52	3.42

MULTIPLE-SECONDARY FILAMENT TRANSFORMERS

The windings on these multiple-secondary filament transformers may be connected in series to obtain their combined voltage. When properly phased current will be equal to current of lowest winding. They may also be connected in parallel to obtain combined current. Primary: 115V, 50-60 Hz. (*)Tapped primary: 105-115-125V, 50-60 Hz.



FILAMENT AND TRANSISTOR TRANSFORMERS

Special Impregnating Prevents Corrosion and Electrolysis
 Designed for Low Temperature Rise
 Vacuum Sealed Against Humidity

Industrial-type transformer with reliability in a wide variety of uses. Low-temperature rise design, vacuum-sealed. Primary 117 V, 60 Hz. *Transistor types with taps on primary to modify secondary nominal voltage from -6%, to +6%, or +12%. Av. shpg. wt. 2 lbs.

	Secondary		dary				EACH				
Stock No.	Mfr's Type	Volts	Amps	Size Inches HxWxD	Wt. Lbs.	1-	10- 24	50- 99	Bulk 100-Up		
954-0734	F-34A	6.3CT/6.3/ 6.3/6.3	1.75/1.75/	33/16X221/22X3	31/4	11.32	10.17	8.51	8.00		
954-0742 954-0783	F-42A F-83A*	12.6/12.6 12.6CT/12.6	2.5/2.5 5/5	315/1ex221/32x31/8 31/8x38/32x33/4	3¾ 6	10.43 17.00	9.38 15.27	7.85 12.91	7.38 12.01		

Stock	Mfr's Secondary		Size Inches	EACH				
No.	Туре	VCT@	Amps	HxWxD	1-4	5-9	10-24	25-Up
964-2902 964-2910 964-2913 964-2915	FT-2 FT-10 *FT-13 *FT-15	6.3 24/12 26 48	1.2 2/4 .04 1	11/1ex2/6x1% 21/1ex4x2% 1/4x2/6x1% 2%x4x2/2	11.89 20.14 17.23 23.93	9.51 16.11 13.98 19.14	8.56 14.50 12.41 17.22	8.20 13.95 11.95 16.51

Filament and Audio Transformers

SINGLE-SECONDARY FILAMENT TRANSFORMERS















EACH

Broad line of commercial grade transformers. All units designed and built to meet the exacting requirements of EIA for electrical tolerances, dielectric strength, temperature rise and construction. All insulated with class A materials. 105°C maximum operating

temperature. All have center tapped secondaries except types P4026, P6469, P8190 and F-13X. All have 115 VAC, 50-60 Hz primary except (†) which are 60 Hz only. (*) Indicates units with 107 V primary tap for low line voltage.

P:-	Secondary				EACH			
Fig.	Volts	Amps	Size, Inches H x W x D	Wt. Lbs.	1- 9	10- 24	25- 99	Bulk 100-Up
* D	2.5 2.5 5.0	1.5 10.0 3.0	1%x2%x1% 3%x3%x2½ 2x3¼ 2%	1 2½ 1½	5.38 9.25 6.63	4.30 7.40 5.30	3.04 5.00 3.58	2.36 3.89 2.78
	5.0	15.0	3/8XZ/2XZ/8 3/8X2/2X2¾	3	10.86	9.76	8.78	5.36 6.83
8 8	5.0 6.3 6.3 6.3 6.3	30.0 .3 .6 1.2 1.2	41%ex3%x4 1%x2%x1% 1%x2%x1% 1%x2%x1% 2x3%x1%	7½ ½ ½ 1	17.76 4.75 5.00 4.88 6.88	16.07 3.80 4.00 3.90 5.50	15.17 2.57 2.70 2.63 3.71	14.28 2.00 2.10 2.05 2.89
B A A	6.3 6.3 6.3 6.3 6.3	3.0 6.0 6.0 10.0 20.0	2x3¼x2½ 2%x3¾x2½ 3½x2½x2¾ 3¼ex2½x2¾ 4¾ex3¾x3%	1½ 2 2½ 3½ 6¾	7.03 10.38 11.87 11.02 15.03	5.70 8.30 7.13 9.90 13.50	3.85 5.61 6.42 8.91 12.15	2.99 4.36 5.94 6.93 9.45
· A A C	7.5 10.0 10.0 10.0 11.0 12.6	4.0 4.0 5.0 8.0 10.0	3½x2½x2¼ 3½ex2½x2½ 3½ex2½x2½ 3³½ex2½x2½ 3³¾ex3½x3 4³½ex3¾x35 2x3¼x1¾	3 3¼ 3 5 7¾ 1	13.75 14.00 13.00 10.52 13.90 6.13	11.00 11.20 10.40 9.68 12.50 4.98	7.43 7.57 7.02 9.15 11.25 3.30	5.78 5.88 5.46 8.61 10.40 2.57
647753 255540 66489 56890	4° DB AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	6 B 2.5 5 0 2.5 5 0 5 0 5 0 5 0 5 0 5 0 5 0 6 3 3 4 5 0 6 3 6 3 6 6 8 6 3 6 3 6 6 8 6 3 6 3 6 6 8 6 3 6 3	6 B 2.5 1.5 4* D 2.5 10.0 5 A 5.0 10.0 5 A 5.0 15.0 5 B 6.3 .3 6 B 6.3 1.2 6 B 6.3 1.2 6 B 6.3 6.0 6 B 6.3 6.0 6 B 6.3 6.0 8 A 6.3 20.0 6 B 6.3 20.0 6 B 6.3 5.0 6 B 6.3 6.0 6 B 6.3 6.0	6 B 2.5 1.5 1%x2½x1½ 4* D 2.5 10.0 3½x3½x2½ 7 B 5.0 3.0 2x3½ 2½ 5 A 5.0 10.0 3½x2½x2½ 5 A 5.0 10.0 3½x2½x2½ 5 B 6.3 3.0 1½x2½x1½ 5 B 6.3 6 1½x2½x1½ 6 B 6.3 1.2 1½x2½x1½ 6 B 6.3 1.2 1½x2½x1½ 6 B 6.3 3.0 2x3½x2½ 9 B 6.3 3.0 3½x2½x2½ 9 B 6.3 3.0 30.0 30.0 3½x2½x2½ 9 B 6.3 3.0 30.0 3½x2½x2½ 9 B 6.3 3.0 30.0 3½x2½x2½x2½x2½x2½x2½x2½x2½x2½x2½x2½x2½x2½	6 B 2.5 1.5 1\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(6 B 2.5 1.5 1\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(6 B 2.5 1.5 1\(\) 1\(\) x 2\(\) x 1\(\) 1 \(\) 2\(\) 2\(\) 9.25 7.40 \\ 4 * D 2.5 10.0 3\(\) x 3\(\) x 3\(\) x 2\(\) 2\(\) 9.25 7.40 \\ 5 B 5.0 3.0 2x 3\(\) 2\(\) 1\(\) 6.63 5.30 \\ 5 A 5.0 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 2 12.75 10.20 \\ 6 B 6.3 .6 15.0 3\(\) 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 10.66 \\ 5 B 6.3 .6 1\(\) x 2\(\) x 1\(\) 4 .75 3.80 \\ 6 B 6.3 .6 1\(\) x 2\(\) x 1\(\) 4 .75 3.80 \\ 6 B 6.3 1.2 1\(\) x 2\(\) x 1\(\) 1 4.88 3.90 \\ 6 B 6.3 3.0 2\(\) 2\(\) x 3\(\) x 2\(\) x 1\(\) 1 6.88 5.50 \\ 6 B 6.3 3.0 2\(\) 2\(\) x 3\(\) x 2\(\) x 1\(\) 1 6.88 5.50 \\ 6 B 6.3 3.0 2\(\) 2\(\) x 3\(\) x 2\(\) x 1\(\) 6 6.88 5.50 \\ 6 B 6.3 3.0 2\(\) 2\(\) x 3\(\) x 2\(\) x 2\(\) 3 \\ 8 A 6.3 6.0 2\(\) 2\(\) x 3\(\) x 2\(\) x 2\(\) 3 \\ 8 A 6.3 1.0 0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 A 6.3 20.0 4\(\) x 2\(\) x 2\(\) x 3\(\) 3\(\) 1.10 2 9.90 \\ 9 * A 6.3 20.0 4\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 6.3 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 9 * A 6.3 20.0 4\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 6.3 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 9 * A 6.3 20.0 4\(\) x 2\(\) x 2\(\) 2 \\ 8 * A 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 2 \\ 8 * A 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 \\ 8 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) 2 3 \\ 8 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) x 2\(\) 3 3 \\ 9 * A 10.0 3\(\) 0 3\(\) x 2\(\) x 2\(\) 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	6 B 2.5 1.5 1½x2½x1½ 1½ 5.38 4.30 3.04 4* D 2.5 10.0 3¾x3¾x2½ 2½ 9.25 7.40 5.00 7 B 5.0 3.0 2x3½ 2½ 1½ 6.63 5.30 3.58 5 A 5.0 10.0 3¾x2½x2½ 2 12.75 10.20 6.89 3 A 5.0 15.0 3½x2½x2½ 2 12.75 10.20 6.89 3 A 5.0 15.0 3½x2½x2½ 2 12.75 10.20 6.89 3 A 5.0 15.0 3½x2½x2½ 10.86 9.76 8.78 5 B 6.3 .6 1½x2½x1¾ ¼ 4.75 3.80 2.57 5 B 6.3 .6 1½x2½x1¾ ¼ 5.00 4.00 2.70 5 B 6.3 1.2 1½x2½x1¾ 1 4.88 3.90 2.63 6 B 6.3 1.2 1½x2½x1½ 1 6.88 5.50 3.71 6 B 6.3 3.0 2x3¾x2½ 2 10.86 3.50 3.66 8 6 B 6.3 6.0 2½x3¾x2½ 2 10.38 8.30 5.61 6 B 6.3 6.0 3½x2½x2½ 3 11.87 7.13 6.42 8 A 6.3 1.0 3½x2½x2½ 3 11.20 9.90 8.91 9 A 6.3 20.0 4½x3¾x2½ 3 11.0 9.89 8.91 9 A 6.3 20.0 4½x3¾x2½ 3 13.75 11.00 7.43 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.57 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 8 A 10.0 3.0 3½x2½x2½ 3 13.00 10.40 7.52 9 C 11.0 10.0 4½x3¾x3¾ 7½ 13.90 12.50 11.25

			260011	uary			EAGII			
Stock No.	Mfr's Type	Fig.	Voits	Amps	Size, Inches H x W x D	Wt.	1-	10- 24	25- 99	Bulk 100-Up
928-3060 928-4017 928-3031 928-4016 928-3078 928-4038	P8130 P8358 P6469 P8357 P8180 P8388	B B B B B B	12.6 12.6 25.2 25.2 52.2 52.2 25.2	2.0 3.0 1.0 2.0 1.0 2.8	2x3¼x2½ 2½x3¾x2¼ 2x3¼x2½ 2½x4x2¼ 2x3¼x2½ 2x3¼x2½ 2%x4x2¼	1½ 1¾ 1½ 2¼ 1½ 2¼ 1½ 2¼	6.63 7.50 6.25 9.50 6.13 12.00	5.30 6.00 5.00 7.60 4.90 9.60	3.58 4.05 3.38 5.13 3.30 6.48	2.78 3.15 2.63 3.99 2.57 5.04
			Second	274				EACH		Bulk
Stock	Mfr's	r's Fig. Seconda	u1 y	Size, Inches	Wt.	1-	10-	50-	100-	
No.	Туре		Volts	Amps	HxWxD	Lbs.	9	49	99	lin

			Seconda	ary				EACH		Bulk
Stock No.	Mfr's Type	Fig.	Volts	Amps	Size, Inches H x W x D	Wt. Lbs.	1- 9	10- 49	50- 99	100- Up
954-0713 954-0714 954-0716 954-0721 954-0728	F-13X F-14X† F-16X F-21A F-28U	EEEGF	6.3 6.3 6.3 6.3 7.5-6.3	.6 1.2 3 10 25	13/x23/x13/ 111/ex213/ex15/ 115/ex314x2 33/ex3x31/ 43/x313/ex35/	1½ 1¼ 1¼ 3½ 7½	5.63 6.18 7.98 12.71 24.23	4.50 4.94 6.38 11.41 21.76	2.83 3.11 4.01 9.55 18.21	2.66 2.92 3.77 8.98 17.11
954-0729 954-0725 954-0726 954-0740 954-0741 954-0745	F-29U F-25X F-26X† F-40X† F-41X† F-45X†	- WHENE	12-11-10 12.6 12.6 26.8 25.2 24	11 1.5 2.5 1 2	4%x3½x3% 11%ex3½x2 2%32x31½ex2% 115%ex3½x2 2%x4½ex2½ 115%ex3½x2	6½ 1¼ 2¼ 1¼ 2¼ 1¼	17.72 7.45 8.25 7.43 9.78 7.48	15.91 5.96 6.60 5.94 7.82 5.98	13.32 3.74 4.15 3.72 4.91 3.75	12.52 3.52 3.90 3.50 4.62 3.53

AUDIO TRANSFORMERS

SUBOUNCER TRANSFORMERS



Open frame type transformers, weighing less than ½ ounce. Vacuum processed and double sealed. Completely waterproof. Two mounting options: 4 inch color-coded flexible leads or mounting channel listed below. Frequency Response: 200 Hz to 20 kHz. SO-1: maximum level +10 dBm, 10 mw. Primary res, 16 chms; Secondary res, 2500 ohms. SO-3: maximum level + 23 dBm, 200 mw. Primary res, 125 chms; Secondary res, 30 ohms. SO-10: maximum level + 24 dBm, 250 mw. Primary res, 290 ohms; Secondary res, 2 ohms. SO-15: maximum level + 24 dBm, 250 mw. Primary res, 35 ohms; Secondary res, 60 ohms. All have fixed impedance ratio, any impedance between the values shown may be employed, except SO-15. Dimensions: 1%2 x 2%2 x 7%7. Average shipping weight: 2 oz.

		J. 671 1	Primary	Sec.	EACH				
Stock No.	Mfr's Type	Use (T. =Transistor)	Imped. Ohms	Imped. Ohms	1-9	10- 24	25- 49	50- Up	
964-6301 964-6305 964-6319	SO-1 SO-3 SO-10	Pl.to line Transistor to VC	200, 50 10K, 25K 2000 CT	250K, 62.5K 200, 500	11.62 10.27	9.88 8.73	8.89 7.86	8.15 7.21	
964-6329	SO-15	T. Output	4000CT 800	16 600	13.05 14.95	10.19 11.96	9.26 8.49	9.17 7.95	
964-5300	SO-CH	Mtg. channel for SC) units		.98	.83	.62	.40	



MATCHING TRANSFORMER, COILS

LS-33. Specially designed to keep hum pickup low. Constructed with hipermalloy core, multiple section, and interleaved windings. Frequency response, ± 1 dB at 10-40,000 Hz. Size, $4\%_e x3\%_e x$ $4\%_e x$. TYPE LS. Repeat and hybrid units with many applications. Designed to assure uniform frequency response, low wave form distortion, high efficiency. *Has high electrostatic shielding. Size, $3\%_e x2\%_e x3\%_e x$

LS-33	HIGH-LEVEL	20-WATT	MATCHING	TRANSFORMER

Stock No.	Mfr's Type	Secondary Imp. (Ohms)	Wt. Lbs.	1-9	EACH 10-24 25-49 50-	Up
964-4733	LS-33	1.2, 2.5, 5, 7.5, 10, 15, 30, 50, 125, 200, 250, 333, 500/600	7½	85.07	68.05 61.25 58.3	18

TYPE IS HYRRID AND REPEAT COILS

Stock	Mfr's	Application	Primary Imp.	Secondary Imp.	EACH					
No.	Type	Approacton	(Ohms)	(Ohms)	1-9	10-24	25-49	50-Up		
964-4738		Mix, match lines and/or transistors		2 sec. each 600/150 split	73.16	62.18	55.97	51.00		
964-4740	LS-140°	Isol. bal. and unbal. circuits	500/600 split	500/600 split	75.55					
964-4741	LS-141	Hybrid Coil 3	bal, windings, e	ach 500/600 CT	70.47	59.90	53.91	49.53		



OUNCER AUDIO TRANSFORMERS

Sealed in a drawn aluminum housing, Max. levels: 0-1 thru 0-16, 6.3 mW, 8 dBm; 0-18, 0-22 and 0-26, 100 mW, 20 dBm; 0-25, 30 mW, 15 dBm; 0-30, 1 W at 200 Hz. Applications: *low-impedance to grid; †mixing, matching; §transistor input; ‡transistor to VC; **transistor interstage; ††plate to line output. "S" indicates split winding. Current where given is unbalanced mA DC. "1/16" mtg. ctrs. Shpg. wt. 2 oz.

Stock	Mfr's	Primary Impedance	Secondary Imped.		EA	CH	
No.	Туре	Ohms	Ohms	1-9	10-24	25-49	50-Up
964-5801 964-5802 964-5804	0-1° 0-2° 0-4†	50, 200-250, 500-600 50, 200-250, 500-600 15k	50k 50k CT 60k	18.35 19.39 15.80	15.61 16.49 13.43	14.61 15.41 12.58	12.88 13.55 11.07
964-5808 964-5810 964-5812	0-8†† 0-10†† 0-12†	15k 30k CT 50, 200-250	50, 200/250, 500/600	18.35 22.00 18.35	15.61 19.91 15.61	14.61 12.59 14.61	12.85 9.96 12.85
964-5816 964-5818 964-5822 964-5825 964-5830	0-16° 0-18°° 0-22‡ 0-25§ 0-30°°	250 CT 10k-2.5k S; 4 mA 400 CT/500 CT; 20 mA 600-500 S 500-125 S; 20 mA	50k 2000-5000 3.2/4 2000-500 S 500-125 S	23.81 18.35 12.88 18.35 18.69	19.04 15.60 11.59 15.61 15.89	17.14 14.04 10.43 14.61 14.08	16.85 12.74 9.39 12.85 13.07
964-5817	0-17	Mumetal Shield; for any	Ouncer unit	5.33	3.56	3.02	2.50
964-5800	0-BR	Ouncer Chassis Mounting	g Bracket	1.98	1.26	1.14	.88

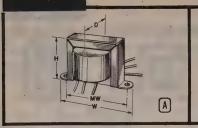


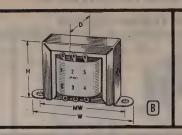
ULTRACOMPACT TRANSISTOR AND TUBE TYPE AUDIO HI-FI TRANSFORMERS

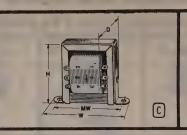
For compact amplifier and equipment applications. Die cast zinc alloy case. Top or bottom mounting. Meet broadcast standards. Frequency response (Hz): \$\pm\$ 20-20,000; \$\pm\$ 40-20,000; Type A-20, 10-50,000; Type A-21, 30-30,000; Type A-26, 20-40,000; Type A-43, 20-30,000. All frequency response specifications are \$\pm\$ 2dB. (*) Indicates multiple alloy shield for extremely low hum pickup. (§) Indicates high electrostatic shielding. Mfr's type A-33 hipermalloy shield fits the entire "A" series of transformers. Mounting: 1\(\frac{1}{2}\)_2" square. Uses 4-40 screws. Requires cutout 1\(\frac{1}{2}\)" diameter. Shipping weight: \(\frac{1}{2}\) b.

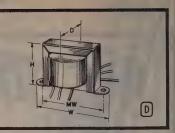
041	106-1-	Austination	Daimanu Ima	Secondary		E/	CH	
Stock No.	Mfr's Type	Application	Primary Imp. (ohms)	(ohms)	1-4	5-9	10-24	25-Up
964-0010	A-10‡	Low imp. to grid	50, 125-150, 200- 250, 333, 500-600	50k	A3 82	37.24	33 52	32 15
964-0012	A-12†	Low imp. to 1, 2 grids Low imp. to PP grids Transistor interstage	50, 200, 500 Same as A-10	50k, P.P. 80k 2 sect 500-2k	33.42 42.62	28.41 36.23 20.99	25.57 32.60	24.30 30.48
964-0020	A-26 §	1 or PP pl. to PP gr. Mixing matching Mixing, matching	15k (Split) Same as A-10 50, 200-250, 50-	80k P.P. 2.3:1 Same as Pri.	44.44	33.07 35.55	32.00	31.04
964-0023	A-23†	T, interstage or out.	500	Same as Pri. 4-16 (Split)		23.09 19.14		
964-0026 964-0035 964-0043	A-35 A-43§	1 or PP pl. to line Transistor interstage Mixing/matching line	600-150 (Split)	As A-10 pri. 500-125 (Split) Two 600-125 Two 500-600	27.89 41.80	35.22 23.71 33.44 32.44	21.34 30.10	20.42 26.49
945-0048 964-0033		Hybrid circuit use Mu-metal shield; for						8.43

Allied® Audio Transformers









1-WATT AUDIO INPUT TRANSFORMER FOR LINE OR MIKE TO GRID Response, ±3 dB, 200-10,000 Hz. Shpg. wt. 1/2 lb.

Stock	Stock Mfr's Fig. Impedance, Ohn No. Type Primary Sec.		Imped	ance. Ohms			EACH		Bulk Packed	
No.			ry Sec.	HxWxD	1-9	1-9 10-49 50-99		100-Up		
705-0870	6W77HF	Α	400CT	195K	11/4x21/1ex11/4"	5.21	4.16	3.47	2.90	

HIGH-FIDELITY 70.7-VOLT LINE-TO-VOICE-COIL TRANSFORMER Constant-voltage. Secondary impedance: 4, 8, 16 ohms. Shpg. wt. 34 lb.

								EACH	Bulk Pkd.	
Stock No.	Mfr's Type	Fig.	Watt. Taps	Max. W.		Mtg.		10- 49	50- 99	100- Up
705-0836		В	5, 2.5, 1.25, .625, .31		15/213/1ex15/6"	23/8"	5.69	4.55	3.79	3.05

INTERSTAGE AUDIO TRANSFORMERS

Maximum DC permissible in primary is 30 mA. Single plate to P-P grid. Turns ratio: 1:1. Mounting centers, 2%". Av. Shpg. wt. 34 lb.

	_							
70E 0009 CHICOUR	l A	2401/	10V CT	48/97/48/#	2 00	2 42	10 OF	2 22
705-0862 6W68HF	IA .	1 101	IUKUI	1%x2%x1%"	3.80	13.42	14.00	2.32

CONSTANT-VOLTAGE 25-V LINE-TO-VOICE-COIL TRANSFORMERS

 ,												
В	2, 1, 0.5 5, 2.5, 1.25, 0.625, 0.31 10, 5, 2.5, 1.25, 0.625	5	1%x21/1ex11/4" 1%x213/1ex15/6" 21/4x311/1ex2"	23/8"	4.90	3.93	3.27	2.30				

UNIVERSAL AUDIO OUTPUT TRANSFORMERS

Six secondary taps, Center-tapped primary for push-pull. Shpg. wt. 34 lb.

						_	E	ACH		Bulk
Stock No.	Mfr's Type	Fig.	Primary Ohms	W.	Size HxWxD	Mtg. Ctrs.	1-	10- 49	50- 99	100- Up
	6W14HFL 6W15HFL	B	2000-14,000 2000-14,000		1%x2%x1½" 1%x2%x1%"		4.10 4.59	3.71 4.13	3.09 3.44	2.50 2.80

STANDARD AUDIO OUTPUT TRANSFORMERS

For coupling single output tube to speaker. Av. shpg. wt. 3/4 lb.

			Impedance, O	hms				EACH		Bulk Pkd
Stock No.	Mfr's Type	Fig.	Primary	Sec.	w.	Size HaWaD	1- 9	10- 49	50- 99	100- Up
705-0807 705-0827 705-0829 705-0846	6W10HF 6W33HF 6W35HF 6W52HF	A A A	5000 @40 mA 2000 @50 mA 5000 @40 mA 1000 @30 mA	3.2	3 5 5	1¼x2½x1½ 1¼x2½x1¼″ 1½x2½x1½″ 1½x2¾x1½″	2.38 3.28 2.21 2.21	1.90 2.62 1.99 1.99	1.58 1.76 1.66 1.66	1.23 1.63 1.35 1.35

CONSTANT-VOLTAGE 70.7-V LINE-TO-VOICE-COIL TRANSFORMERS Secondary impedance: 4, 8, 16 ohms except *4, 8 ohms only. Shpg. wt. 3/4 lb.

						EA	CH		Bulk
Stock No.	Mfr's Type	Fig.	Watt. Taps	Max. W.	Mtg. Ctrs.	1- 9	10- 49	50- 99	100- Up
705-0801 705-0822 705-0802 705-0803 705-0804	6W28VFL 6W4HFL 6W5VFL	CBC	5, 2.5, 1.25, .62, .31 8, 4, 2, 1, 0.5 10, 5, 2.5, 1.25, .62 18, 9, 4.5, 2.25, 1.12, .56 24, 12, 6, 3, 1.5, .75	10 18	2%"	6.61		3.34 3.58 4.40	2.56 2.60 2.90 3.40 4.35

STANDARD LINE-TO-VOICE-COIL TRANSFORMERS
Primary imp.; *2000/1500/1000/500 ohms; †3000/2000/1500/1000/500 ohms. 11/4 lbs

705-0823 6W29HFL B 705-0824 6W30VHL C 705-0837 6W43HFL B	500 500	4, 8 4, 6, 8, 15		2%x2%x1%"	3.83 6.08	4.86	2.06 3.28	1.60 2.56
705-0837 6W43HFL B 705-0839 6W45VFL C	+	4, 8, 16	10	1%x2%x1½" 2%x2%x1%"	3.81 7.47	3.05 5.98	2.80 4.01	2.00 3.19

MINIATURE INTERCOM AND TRANSCEIVER TRANSFORMERS

Stock	Mfr's	Fig.	Impedan	ce, Ohms	Size H x W x D	Mtg. Ctrs.	· 17/3-27	EACH	"Makir 2 Hi	Bulk Packed
No.	Туре		Primary	Secondary	Inches	In.	1-9	10-49	50-99	100-Up
705-0849 705-0850	6W55HF 6W56HFL	D	4 45/50	25,000 3-4, 6-8	1%x2%x1½ 1%x2%x1%	2 .	3.16 2.54	2.85	2.38 1.90	1.93 1.54

Type HF. Intercom transformer. Intercom input, voice coil to grid. Standard single plate to voice coil output. Type HFL. Transceiver Transformer. Line to voice coil. Standard single plate to voice coil output. 3 watts power handling capability. Average shipping weight: ½ lb.

AUDIO TRANSFORMERS FOR EVERY APPLICATION

SINGLE PLATE TO VOICE COIL AND/OR LINE

			Imped		Max.		DC Re	sist.			Mtg.			EACH		Bulk Pkd.
Stock	Mfr's	Fig.	in Ol		Pri.	Audio	Pri.	Sec.	Response	HxWxD	Ctrs.	Wt.	1- '	10-	25-	100-
No.	Type		Pri.	Sec.	DCMA	Watts	Ohms	Ohms	Hz±3 DB	inches	MW	Lbs.	9 (1)	24	99	Up
928-0005	A-3332	E	2000	3.2	50	.3	2	0.27		11/4x21/6x11/4		1/2	3.64	2.91	1.96	1.81
928-0327	A-3327	E	25000	4.0	5	5	1200	0.6	200-15000	1%x2%x1%	2	1/2	4.00	3.20	2.16	2.00

LINE TO VOICE COIL
Mounting centers (MW): 2%" except A-8101, 2".

						DC R			rms				EACH		Bulk Pkd.
Stock	Mfr's	Fig.	Impedance in Ohn		Audio	in O		Response	Test	HxWxD	Wt.	1-1	10-	25-	100-
No.	Type		Primary	Sec.	Watts	Pri.	Sec.	Hz±3 DB	. V	Inches	Lbs.	9	24	99	Up
928-0036	A-8104	F	3000/2000/1500/1000/500	4/8/16	10	175	1.5	50-15000	1000	31/8×21/2×21/8	11/2	8.30	6.64	4.46	3.47
928-0383	A-3883	F	500	4/6/8/15	25	. 24	1.0	50-15000	1500	2%x2%x1%	1	6.75	5.40	3.65	2.84
928-0033	A-8101	H	no n 500 n	3/3.2/6-8	5	40	0.5	60-20000	1000	1%x2%x1%	1/2	4.25	3.40	2.29	1.78

							DC Dee					EACH		Bulk Pkd.
Stock	Maria	Ein	Impedance in Ol	ıms		Power Steps	in Ohms	Re-	HxWxD	Mtg.	1.	I 10.	25-	100-
No.	Туре	riy.	Primary	Sec.			Pri. Sec.	Hz±3D	Inches	MW Lbs	. 9	24	99	Up
928-0034			325/1250/2500/5000/10000	4/8/16	-	8/4/2/1/0.5		50-20000		2 3	6.88	5.50	3.71	2.89
928-0037	A-8105	G 1	1000/2000/4000/8000/16000	4/8	A.	5/2.5/1.25/.62/.31	950 0.6	50-20000	1%x2%x1%	2 /	6.75	5.40	3.65	2.84

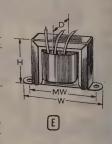
70.7 VOLT LINE TO VOICE COIL

25 VOLT LINE TO VOICE COIL

	11.74		4.1	B	Power	DC Res.	Re-	3 7.	Mta.			EACH		Bulk Pkd.
Stock	Mfr's	Fig.	Impedance in C	hms	Steps	in Ohms	sponse		DIME.	Wt.	1-	10-	25-	100-
No.	Type	Ť	Primary	Secondary	Watts	Pri. Sec.	Hz±3B	Inches	MW	Lbs.	9	24	99	Up
928-0020	A-8097	F	39/78/156/312/625/1250	16/8/4/2/0.5	16/8/4/2/0.5	60 1.1	30-20000	2%x3%x2%	213/10	1½	10.25	8.20	5.53	4.30

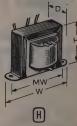
LOW-POWER AUDIO TRANSFORMER
Balanced line to balanced line. Static shields. Split primary and secondary. 5 oz.

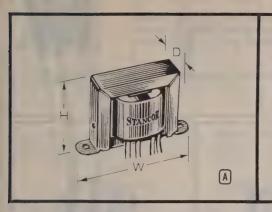
Stock	Mfr's	1, 1	mW	Impedan	ce (Ohms)		EACH		Bulk
No.	Туре	Fig.	Output	Primary	Secondary	1-9	10-49	50-99	100-Up
954-0067	A-67J	J	50	600CT/150	600CT/150	14.53	13.05	10.93	10.27

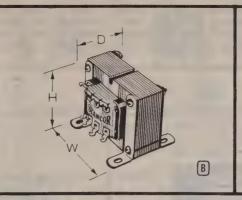


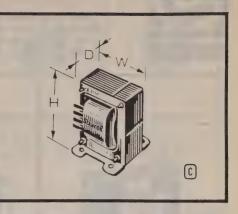












All ratings are with maximum DC in winding. Rated at 1500 volts rms, except †3000. Designed for both input and smoothing applications. Type C2691 has

FACH Bulk DC Size HxWxD Inches Induc-Stock Mfr's Fig. tance Туре Up C1001† C2318 C2328 C2343 C2685 C2686 6.40 3.00 5.50 3.11 7.20 10.00 928-0046 928-0064 928-0068 928-0091 8.00 3.76 6.88 3.89 9.00 12.50 3.36 1.88 3.44 1.94 3.78 5.25 2½ ½ 1½ ¾ 4.32 2.03 3.71 2.09 4.86 6.76 10.5 12.0 225 2%x4x21/8 30 375 300 2A 4A 400 25 32 .75 .425 1%x2%x1% 1%x2%x1% 3%x3%x1% 1%x2%x1% 2%ex2%x2%

dual windings; first rating is series operation and second rating is parallel operation, § indicates printed circuit mounting.

			Induc-		DC	Size			EA	CH	Bulk
Stock No.	Mfr's Type	Fig.	tance H	mA	Res. Ohms	HxWxD Inches	Wt.	1- 9	10- 24	25- 99	100- Up
928-0072 928-0873 928-0074 928-0076 928-0080 928-8155	C2687 C2688 C2689 C2691 C2708 TC-2§	B B C B B	.010 .010 .005 .08/.02 .032	8A 12½A 22½A 2.5/5A 600 1A	.15 .11 .03 .6/.15 10 .075	3% ex3x3% 3%x4%x2% 31% ex4%x4% 31% ex3%x3% 2x3%x1% 1%ex1%ex1%	7 11/4	11.27 13.36 23.38 13.69 5.40 9.45	21.01	8.11 10.81 18.91 11.07 2.90 6.80	7.09 8.40 14.70 8.61 2.66 5.78

POWER TRANSFORMERS

OSCILLOSCOPE POWER TRANSFORMERS

Well-built transformers for original design or replacement use. For 2x2 rectifiers in conventional half-wave high-voltage supplies. Primary voltage 117 V, 60 Hz. P-8150 secondaries (2):

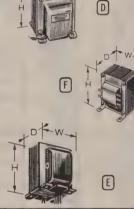
1550 V AC at 1.5 mA; 2.5 V AC at 1.75 A, P-8151 secondaries (3): 2400 V AC at 5 mA; 2.5 V AC at 2 A; 2.5 V AC at 2 A.

Stock	Mfr's	Secondaries	Size Inches	Wt.		EA	СН	Bulk
No.	Type	(see above)	HxWxD	Lbs.	1-9	10-24	25-99	100-Up
928-3061 928-3062	P-8150 P-8151	2 3	31/16x3x21/2 45/16x35/16x37/8	61/2	12.02 19.04	10.80 17.10	9.72 15.39	7.56 11.97

E PLATE TRANSFORMERS FOR CAPACITOR-REACTOR INPUT FILTERS

Capacitor input rating is for intermittent duty: 200 mA; †160 mA. *For reactor input. Primary 117 V, 60 Hz.

Stock	Mfr's	Pla	te	Size Inches	Wt.		E/	ACH	Bulk
No.	Туре	VCT	mA*	HxWxD	Lbs.	1-9	10-24	25-99	100-Up
928-5050 928-5055	PC-8301† PC-8304	830 1500	200 265	3%x3%x3% 41%ex3%x4%	111/2	13.36 26.05	12.01 23.41	10.81 21.07	10.01 16.39



F RECTIFIER TRANSFORMERS

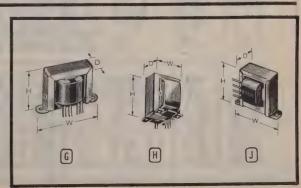
				utput Load,		utput Load,				EAC		Bulk
Stock No.	Mfr's Type	Range of AC Volts	A	B B	A	B B	Size Inches HxWxD	Wt. Lbs.	1- 9	10- 24	25- 99	100- Up
928-8001 928-8002 928-8003 928-8004 928-8005 928-8008 928-8009 928-8012	RT - 201 RT - 202 RT - 204 RT - 206 RT - 208 RT - 401 RT - 402 RT - 2012	11.7-29.4* 12.0-29.8 11.7-29.2† 12.0-29.7 12.1-29.2 24.0-59.0 23.0-58.0 12.2-29.0	11.2V@2.0A 11.1V@4.0A 12.0V@8.0A 11.5V@12.0A 11.4V@15.0A 25.0V@2.0A 25.0V@4.0A 11.4V@22.5A	23.0V@1.25A 24.3V@2.0A 24.0V@4.0A 24.0V@6.0A 23.7V@8.0A 52.5V@1.0A 51.5V@2.0A 23.5V@12.0A	13.8V@2.0A 14.7V@4.0A 14.5V@8.0A 14.4V@12.0A 14.8V@15.0A 34.0V@2.0A 33.5V@4.0A 14.3V@22.5A	30.0V@1.25A 33.0V@2.0A 32.4V@4.0A 32.0V@6.0A 32.5V@8.0A 73.5V@1.0A 72.5V@2.0A 33.0V@12.0A	3/x2/x2/x 3//6x2 3/x3/x 31/4x3/x3/x 4/x6x3/x3/x 4/x6x3/x5 3/x21/x6x31/x 31/x21/x6x31/x 5/x6x4/x5/x	2½ 4 6¼ 9¼ 12½ 4 7 20½	13.00 11.02 15.70 21.21 30.06 12.86 17.12 45.34	10.40 9.90 14.10 19.05 27.01 11.56 15.38 40.23	7.02 8.91 12.69 17.15 24.31 10.40 13.84 36.66	5.46 6.93 9.87 13.34 18.91 8.09 10.77 28.51

PLATE-FILAMENT POWER TRANSFORMERS

CT 6.3 V filament windings except *for 6AX5, 6X4, 6X5 tubes or with selenium rectifiers. †½ wave. Primaries, 117 V 60 Hz. ‡For AC powered photo-

flash circuits, $105/115/125\ V$ primary, no center tap.

										EA	CH	Bulk
Stock	Mfr's	Fig.	Pla	te	Filan		Size Inches	Wt.,	1-	10-	25-	100-
No.	Type		VCT	mA	V @ A	V.@ A	HxWxD	Lbs.	9	24	99	Up
928-7215	*PS-8415	J	1125	15		6.3 @ .6	2x2%x1%	3/4	6.00	4.80	3.24	2.52
928-5000	*PA-8421	G	†125	50		6.3 @ 2	21/4x31/4x21/8	11/2	8.25	6.60	4.46	3.47
928-3013	‡P-6425	J	360	20			25/16X215/16X2	11/2	7.45	5.96	4.69	4.52
928-5076	*PC-8418	Н	460	50		6.3 @ 2.5	31/8×21/2×25/8	21/4	11.63	9.30	6.28	4.88
928-5075	*PC-8417	Н	440	50	6.3 @ 0.6	25.2 @ 0.5	31/4x21/2x21/4	21/4	13.13	10.50	7.09	5.51
928-5077	°PC-8419	Н	480	70		6.3 @ 3	31/ax21/2x21/a	23/4	13.00	10.40	7.02	5.46
928-5068	PC-8409	Н	700	90	5 @ 2	6.3 @ 3	31/2×213/1e×35/6	41/2	11.85	10.66	9.59	8.88
928-5099	P-8627	Н	150	25		12.6 @ 0.3	115/16X23/8X113/18	3/4	7.38	5.90	3.99	3.69



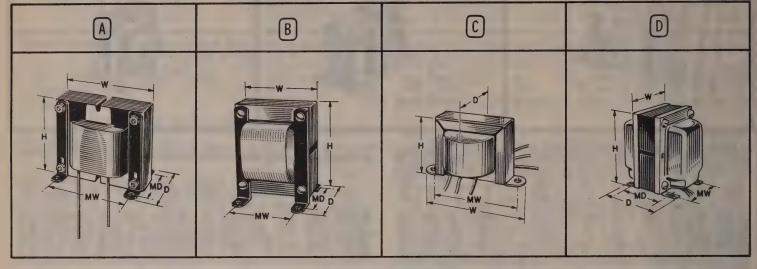


Allied® Filter Chokes; Sealed Inductors

Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B.

Chicago, Illinois. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or simply contact your nearest Allied Electronics' facility.



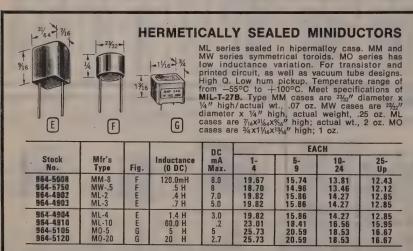


FILTER CHOKES

Rated at 10V, 60 Hz with max. DC in winding. All -15%, +50% tol. 1500-V rms insulation,

except †2000V, *3000V. ‡Amperes. §Tapped for 8 H @ 150 mA or 4 H @ 200 mA.

-	Stock	Mfr's	Fig.	Henries	mA	Ohms	Size H x W x D	Mtg. Ctrs.		EACH		Bulk Packed
	No.	Type .	1,21,	e 13: .	7 - 25	74 7 h	inches ·	Inches	1-9	10-49	50-99	100-Up_
	705-1143 705-1142 705-1131 705-1130 705-1129	6X42HBR 6X41HBR 6X31HBR 6X30HBR 6X29HBR	A A A A A	.005 .01 .01 .025 .035	22.5‡ 8.0‡ 12.5‡ 4‡ 2‡	.03 .15 .11 .425 .75	3%x4½x4½6 3%x3%x3% 3½x4%x3 2%x3%x2% 2%x2%x2½	34x3½ 3%x2¼ 3%x2% 24x2% 2%x2	21.04 10.44 12.02 11.25 8.10	18.91 8.11 10.80 9.00 6.48	17.02 7.30 9.73 6.08 4.37	13.23 6.38 7.56 4.72 3.40
	705-1132 705-1133 705-1134 705-1135 705-1109	6X32HBR 6X33VBR 6X34HF 6X35HF 6X9HF	A B C C C	.08/.02 .3/.075 .32 .70 1.5	2.5/5.0‡ 1.0/2.0‡ 600 290 200	.61/.155 3/.75 10 30 60	31%ex3%ex31%e 3½x2%x3%e 2x3¼x2¼ 11%ex21%ex1½ 1%x21%ex1%	2½x3½6 2¼x2½6 2¾x1½6 2¾ 2¾ 2%	12.51 9.11 4.86 3.50 2.77	11.25 8.20 3.89 2.80 2.50	9.39 6.83 2.70 2.00 2.08	7.60 5.50 2.42 1.80 1.69
١	705-1145 705-1124 705-1107 705-1105 705-1136	6X44HF 6X24HF 6X7HF 6X5HF 6X36HF	00000	2.0 2.5† 3.5 5.5 6.0	15 130 50 50 200	70 100 200 330 150	1 4x2%ex1 4 2x3 4x1 4 1 %x2 1%ex1 1/2 1 1/2 x2 4x1 1/4 2 %x4 x2 1/4	1 ³ / ₁₆ 2 ¹³ / ₁₆ 2 ³ / ₈ 2 3 ⁹ / ₁₆	2.06 3.90 2.65 2.30 6.63	1.86 3.21 2.28 1.99 5.30	1.54 2.67 1.90 1.66 4.42	1.25 2.18 1.54 1.35 3.35
	705-1106 705-1115 705-1103 705-1144 705-1138	6X6HF 6X15HF 6X3HF 6X43HF 6X37VG	00000	7.0 8.0 8.5 9.0 10.0†	50 85 50 125 200	550 260 400 250 150	1%x2%x1% 2x3%x2 1%x2 ¹ %ex1% 2 ⁶ %ex3 ¹ /%ex1 ¹⁵ /e 3%x2 ¹⁶ %ex3%	2 2 ¹³ /16 2% 3% 2¼×2%	4.17 4.28 2.85 5.50 13.08	3.34 3.42 2.56 4.40 10.46	2.50 2.31 2.14 3.21 8.37	2.00 2.14 1.74 2.61 5.36
	705-1139 705-1104 705-1121 705-1101 705-1125	6X38HF 6X4HF 6X21VG 6X1HF 6X25HF	CODCO	10.0 10.5 12.0*\$ 16.0 35.0	90 110 100 50 15	270 220 145 550 1600	2x3%x2 2%x4x2% 3x2%x2 ¹ / ₁ 6 2x3%x1% 1%x2%x1/4	2 ¹³ /16 3 ⁹ /16 2×1 ³ /4 2 ¹³ / ₁₆ 2	4.75 7.20 8.00 3.40 2.95	3.81 5.76 6.40 3.06 2.36	3.17 3.89 5.04 2.56 1.79	2.30 3.02 4.10 2.07 1.45



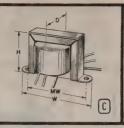
MIL-T-27B VARIABLE INDUCTORS



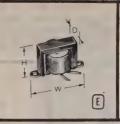
These extremely compact, hermetically sealed variable inductors meet MILT-27B specifications. They provide a wide range of inductance with high Q factor. Offer excellent performance in tuned circuits. Adjustable from -70% to +200% of mean inductance by 900° rotation. TVC-8 has taps at 30% and 50% of total turns. All units have two 4-40 mounting studs. Dimensions: 1½x 2½x1½x". Average shipping weight: 2 ounces.

Stock	Mfr's	Mean	Max		EA	CH	
No.	Type	Н	mA	1-4	5-9	10-24	25-Up
964-4201	HVC-1	.006	100	21.66	17.33	15.60	14.95
954-4203	HVC-3	.040	40	21.66	17.33	15.60	14.95
964-4206	HVC-6	.6	15	21.66	17.33	15.60	14.95
964-4207	HVC-7	1.5	10	23.01	18.41	16.56	15.95
864-6508	TVC-8	4	7	27.57	22.06	19.85	19.05











Allied transformers are specially built to Allied Electronics' high standard for quality, stability and long-term performance. Laminated cores of silicon iron electrical grade steel. Insulation is non-corrosive Class A. Temperature rating 105°C continuous operation. Superior permeability at high inductances, with low coil loss. Coils of high

quality film insulated copper magnet wire. PVC leads are fast stripping and provide protection from oil, ozone and abrasion. Cold rolled steel covers provide protection to coils. Finished in semi-gloss enamel for good appearance. Compare prices and specifications and you will find that Allied transformers are your best buy.

ALLIED OSCILLOSCOPE POWER TRANSFORMERS

For use with 2X2A rectifiers in half-wave power supplies. All require primary input voltage of 117 volts, 60 Hz AC. Secondary outputs are shown in table below

Stock	Mfr's	Fig.	Plate S	upply	Re	ct.	Other Secondary	Size		EACH		Bulk Packed
No.	Type		AC Volts	DC mA	Volts	Amps	Outputs	HxWxD	1-9	10-49	50-99	100-Up
705-0152 705-0151	6K127VG 6K126VG	B B	1800 2400	2.0 5.0	2.5 2.5	1.8 1.8	2.5v @ 2.2A; 6.3v @.6A 2.5v @2.0A	37/8x31/4x39/16" 41/4x39/16x313/16"	18.74 19.77	16.04 16.74	15.15 14.88	9.43 12.25

ALLIED LOW-VOLTAGE RECTIFIER TRANSFORMERS

Primary, 115 V, except † 110-120. * Tapped primary for lower voltages.

Stock	Mfr's	Fig.	Secondary		Case Size	Mtg.		EACH		Bulk Packed
No.	Туре		Volts	Amps	HxWxD	Ctrs.	1-9	10-49	50-99	100-Up
705-0126 705-0127 705-0128 705-0129 705-0130	6K100HF 6K101HF 6K102HF 6K103HF 6K104VG	C** CC** CC**	10/20CT/40CT 10/20CT/40CT 10/20CT/40CT 10/20CT/40CT 10/20CT/40CT	.035 .100 .300 .750	1 ⁷ / ₁₆ x2%x1%" 1 ¹¹ / ₁₆ x2 ¹³ / ₁₆ x1%" 2 ⁵ / ₁₆ x3 ¹³ / ₁₆ x2" 2%x4x2%" 3%x25x3%"	2" 2%" 3%" 3%" 2x2%"	6.03 5.85 7.20 10.40 13.32	4.82 4.68 5.76 8.30 11.87	4.18 3.09 3.80 6.90 10.90	3.19 2.50 3.08 5.85 8.65
705-0131 705-0132 705-0133 705-0134 705-0135	6K105VBR 6K106VBR 6K107VBR 6K108VBR 6K109VBR	A A A A†	0/17/18 0/17/18 0/6.5/13/19.5/26 0/24/27/30/33/36 0/24/27/30/33/36	3.0 6.0 3.0 3.0 8.0	3½x2%ex2%" 3¹¾ex3¾ex3¼" 3½x2½x2¾ 3¹¾ex3¾ex3¼" 4%x3¹¼ex3½	2x2%" 2½x2%" 2¼x2%" 2½x2%" 3x3¼"	11.38 13.62 12.37 12.98 25.79	9.10 12.26 9.90 11.68 23.21	7.60 10.22 8.25 9.71 19.42	6.00 8.31 6.50 9.18 18.25

POWER AND PLATE TRANSFORMERS FOR EVERY PURPOSE

D UNIVERSAL RECTIFIER POWER TRANSFORMERS

Primary, 115 volts, 60 Hz AC

Stock	Mfr's	Secondary	1	Size Inches	Wt.,		EACH		Bulk
No.	Type	Volts	Amps		Lbs.	1-9	10-24	50-99	100-Up
954-0747	F-47U	17/18	3	31/8x29/16x3	31/4	14.90	11.92	7.49	7.04
954-0748	F-48U	17/18	6	313/16x33/16x33/16	51/2	14.18	12.74	10.67	10.03
954-0760	F-60U	6.5/13/19.5/26	- 3	31/2x21/8x211/18	31/2	14.55	11.64	7.31	6.87
954-0761	F-61U	24/27/30/33/36	3	313/16X33/16X31/4	6	14.81	13.30	11.13	10.46
954-0767	F-67U	24/27/30/33/36		45/8x313/16x43/8	103/4	27.86	25.02	20.94	19.68
954-0779	F-79U	24/26/28/30	. 15	313/16x45/8x51/2	181/2	41.92	37.65	31.52	29.63

LOW VOLTAGE RECTIFIER TRANSFORMERS (Transistor Drive Voltage)
Fig. E. except (*) F. All types have 115 volt primaries, tapped to produce lower voltages.

Stock	Mfr's	Secondar	γ	Size Inches	Wt.,		EACH		Bulk
No.	Type	Volts	Amps	HxWxD	Lbs.	1-9	10-24	25-99	100-Up
954-0790	F-90X	10/20CT/40CT	.1	1%x213/16x15/8	3/4	7.55	6.04	3.79	3.56
954-0791	F-91X	10/20CT/40CT	.3	29/32X311/16X2	11/2	9.13	7.30	4.58	4.31
954-0792	F-92A*	10/20CT/40CT	1	33/32x231/32x3	33/4	10.34	9.27	7.77	7.31
954-0793	F-93X	10/20CT/40CT	.75	213/32X4X21/4	21/2	11.63	9.30	5.84 3.74	5.49
954-0794	F-94X	10/20CT/40CT	.035	1%x2%x1%	1/2	7.45	5.96	3.74	3.52

PLATE TRANSFORMERS (Primary 115 V, 50-60 Hz)

Stock	Mfr's	Secondary	Size Inches	Wt.,		EA	СН	
No.	Type	00001110111	HxWxD	Lbs.	1-4	5-9	10-24	25-Up
964X6247 964X6248	S-47 S-48	1500-1250-1000-0-1000-1250-	5%x6%x6% 5%x61%x2x7%	26¾			114.11	
964X6249	S-49	2100-1800-1500-0-1500-1800-		31			125.26 1	

F "R SERIES" POWER TRANSFORMER FOR PREAMPS, ETC.

Primary, 115 V, 60 Hz. Shpg. wt. 2 lbs.

Stock	Mfr's	Plat	е	Filam	ents	Size Inches		EA	CH	Bulk
No.	Type	Volts	mA	V	Α		1-9	10-49	50-99	100-Up
954-3029	R-29A	230 CT	40	6.3CT	1.5	225/32X211/32X23/8	12.18	9.74	6.12	5.75

POWERDIAL® SOLID STATE SCR POWER CONTROLS

- Output Continuously Adjustable—AC or DC
- No Brush Burn-out or Wear
- One-half the Size, One-tenth the Weight, and Less Expensive than Conventional Autotransformers

Solid state power control using Silicon Controller Rectifiers. Controls voltage and therefore regulates other quantities such as power, current, heat, motor speed and light. Will replace and have many advantages over variable autotransformers. Load current passes through solid state elements, eliminating brush wear or burn-out problems. Can give AC or DC output by merely flicking a switch. Less expensive to install than autotransformers—and they cost less.

install than autotransformers—and they cost less.

PD SERIES. Bench Models. Aluminum casting provides light but rugged case. 3-prong plug and receptacle affords safety in electrical connections. Fused against overloads. For 120 volts, 50 to 60 Hz. PDU SERIES. Suitable for panel mounting. May be wired for AC or DC output. Two-wire connection. Aluminum mounting bracket and phenolic case provide lightweight, small, easily mountable control. Distance between center of oval mounting holes is 3½2" which is standard for electrical outlet and switch boxes. Must be externally fused against overloads. PDU operates at 120 volts, 2PDU at 240 volts, both at 50 to 60 Hz. All may be controlled from one or more remote locations with a motor control system.







Stock	Mfr's	Fig.	rms	Amps	AC	Volts	rms Output	Size, In.	Wt.,		EACH	
No.	Type	rig.	AC	DC	In	Out	Volts DC	HxWxD	Lbs.	1-4	5-9	10-Up
847-9204 847-9206 847-9208 847-9210	PD-50 PD-75 PD-100 PD-150	6 6 6	0-5 0-7.5 0-10 0-15	0-5 0-7.5 0-7.5 0-10	120 120 120 120	0-120 0-120 0-120 0-120	0-85 0-85 0-85 0-85	4½x4½x2½ 4½x4½x2½ 4½x6x2½ 6x6x2½	2 2 2½ 3	35.20 39.60 44.00 88.00	28.16 31.68 35.20 70.40	25.34 28.51 31.68 63.36
847-9220 847-9222 847-9224 847-9226	PDU-50 PDU-75 PDU-100 PDU-150	H	0-5 0-7.5 0-10 0-15	0-5 0-7.5 0-7.5 0-10	120 120 120 120	0-120 0-120 0-120 0-120	0-85 0-85 0-85 0-85	4x2x1% 4x4x1% 4x4x1% 4%x4%x3%	1/2 1/2 3/4 1	23.08 27.48 44.00 88.00	18.46 21.98 35.20 70.40	16.61 19.78 31.68 63.36
847-9244	2PDU-100	J	0-15	0-7.5	240	0-240	0-170	4x4x1 %	3/4	57.20	45.76	41.18

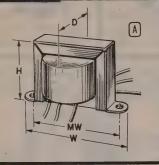
Allied® "Best-Buy" Power Transformers

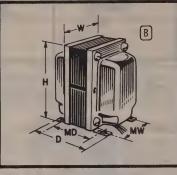
For new equipment or replacement use. All types listed are shielded except those indicated by #. Have 8" flexible color-coded leads for easy installation. Plate windings are center-tapped except *half-wave type. 6.3 volt windings are center-

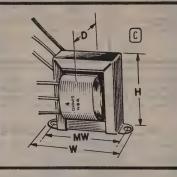
tapped except † not center-tapped. ‡Electrostatic shield. **25.2 volts at 0.5 amp winding. All have primaries for operation from 110-120 volt, 50 to 60 Hz AC, except for §60 Hz AC only.

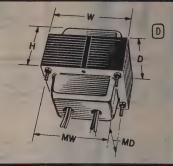


TRANSFORMERS









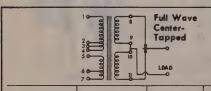
ALLIED'S OWN POWER TRANSFORMERS

Stock	Mfr's	Fig.	Pla	te	Filame	ents	Case Size HxWxD	Mtg. Size MWxMD		EACH		Bulk Packed
No.	Type	1	VCT	mA	5 V (Amps)	6.3 V (Amps)	Inches	Inches	1-9	10-49	50-99	100-Up
705-0168 705-0034 705-0035 705-0171 705-0137	6K143HF 6K27VF 6K28HF 6K146HB 6K111VG	A‡ C#§ A# D‡§ B‡	115° 125° 125° 135° 230	15 15 50 200 40		0.6† 0.6† 2.0† 5.5 1.5	111/16x213/16x13/4 2x23/6x13/6 25/16x311/16x21/4 21/6x33/6x213/16 22/6x33/6x213/16	2 ³ / ₆ 2 3 / ₈ 2 ¹³ / ₁₆ ×2 / ₄ 1 ³ / ₄ ×1 ⁵ / ₈	8.00 5.40 7.43 14.00 10.50	6.40 4.32 5.94 11.15 8.35	5.35 2.92 4.01 9.30 7.00	4.20 2.27 3.12 8.00 6.00
705-0001 705-0106 705-0156 705-0066 705-0067	6K1VF 6K82VF 6K131VG 6K49HB 6K49VG	C#§ C# B** D	250 380* 440 460 460	25 20 50 50 50		1,0† 0.6† 2.5† 2.5†	2%x2%x1% 2%x2%x2¼e 3%x2%x2¼e 1%x3x2½ 3%6x2%x2¼	2% 2% 2x1 ¹¹ / ₁₆ 2½x2 2x1 ³ / ₄	5.85 5.73 11.28 8.25 10.47	4.68 4.58 9.02 6.60 8.37	3.56 3.56 6.23 5.22 5.65	3.36 2.90 5.07 4.24 4.39
705-0002 705-0069 705-0071 705-0113 705-0075	6K2HB 6K50VG 6K51VG 6K88VG 6K53VG	DBBBBB	480 480 480 500 500	40 55 70 40 70	2 2	2.0 2.0 3.0† 2.0 2.5	113/6x3x2½ 33/6x25/6x211/16 33/6x25/6x215/6 23/4x21/4x23/4 33/6x25/6x33/6	2½x2 2x1¾ 2x1¼ 1 ²⁵ ⁄ ₂ x1½ 2x2½	9.60 9.98 11.70 9.65 26.12	8.15 7.98 9.36 7.75 22.11	7.69 6.18 6.31 6.05 20.34	5.31 5.03 4.89 5.45 16.19
705-0079 705-0037 705-0081 705-0167 705-0054	6K55VG 6K29VG 6K56VG 6K142VG 6K42HB	B B B # § D	520 520 540 600 600	90 90 120 60 70	2 3	3.0 3.5 2.7 3.0	3%ex2 ¹ %ex3%e 3%x3x3½ 3 ¹⁵ %ex3¼x3½ 3%x2 ⁵ %x2 ¹¹ %e 2¼x3x2½	24x21/16 24x24 24x24 2x111/16 21/2x2	10.95 10,25 11.01 13.80 13.50	8.76 8.94 9.91 11.00 10.80	6.54 7.37 8.25 9.20 8.60	5.31 5.99 6.71 7.90 7.55
705-0055 705-0059 705-0005 705-0006 705-0007	6K42VG 6K44VG 6K3VG 6K4HB 6K4VG	B 0.7 B D B	600 600 650 650 650	70 120 40 70 70	2 3 2 3 3 3	3.0 5.0 2.0 3.5 3.5	3%6x2%x3% 315%6x3%x3% 3%6x25%x21%6 2%x3x2½ 313%6x25%x3%	2x2%6 2½x2%6 2x11%6 2½x2 2x3%	13.50 15.07 9.30 9.05 9.05	10.80 12.75 7.90 7.24 7.24	8.60 11.73 7.43 6.38 6.38	7.55 7.15 4.98 5.25 5.25
705-0077 705-0008 705-0010 705-0011 705-0063	6K54VG 6K5HB 6K6HB 6K6VG 6K46VG	B D D B B	700 700 700 700 700	70 90 120 120 200	233333	2.5 3.5 4.7 4.7 6.0	3%6x2 ¹ %6x3%6 2½x3%x2 ¹ %6 2%x3%x3% 3 ¹⁵ %6x3¼x3% 45%x3¼x4	2½x2¾6 2¹¾6x2¼ 3½x2½ 2½x2¹¼6 3x2¹¾6	12.80 14.54 15.04 15.04 20.52	10.24 12.35 13.55 13.55 17.40	7.72 11.63 11.29 11.29 15.47	6.28 7.50 9.17 9.17 12.00
705-0013 705-0169 705-0015 705-0039	6K7VG 6K144VG 6K8VG 6K30VG	B B B B	750 800 800 800	150 30 200 250	3 2 3 4	5.0 1.2†, 1.2† 5.0 5.0	3½x2½x4¾ 3½x2½x3¾ 4½x3½x4¼ 4½x3¾x4¾	2½x3½6 2x2¾6 3x2 ¹³ /6 3x3 ⁸ /6	19.00 15.27 16.62 20.11	15.20 12.94 14.96 18.09	13.48 11.89 12.47 15.07	9.08 7.61 10.14 12.26
705-0041 705-0040 705-0155	6K31VG 6K31HB 6K130VG	B D B§	1200 1200 1840	200 200 250 in	3 d. 200 cap.	3t, 3t 3t, 3t	4%x3%x4¼ 215/16x4½x3¾ 45%x3%x51/16	3x3½6 3¾x3 3x3½6	20.11 23.27 25.37	18.09 18.84 24.36	15.07 17.75 23.07	12.26 15.50 16.65

TUBE CHECKER TRANSFORMER

Multiple-secondary type for use in tube testers. Primary: 60 Hz. Secondary output volts: 1.1 / 1.4 / 1.5 / 2.0 / 2.5 / 3.0 / 3.3 / 4.0 / 5.0 / 6.3 / $3\%_6$ ". With data sheet.

Stock	Mfr's	Fig.	Primary 3	Size A	Mtg.	3	EACH		Bulk Packed
No.	Type		Input Volts	HxWxD	Ctrs.	1-9	10-49	50-99	100-Up
705-0140	6K114HF	Α	125/115/105	2%x4x31/16"	39/16"	18.00	14.50	12.10	10.25



MULTI-TAP SELENIUM RECTIFIER TRANSFORMERS (Not illus.)

For use in full-wave center-tapped or bridge-type circuits with standard rectifiers. Allow a variety of combinations using taps on both windings, plus "aiding" or "bucking" action of extra winding. Permit numerous output voltages in addition to those below. Pri. 117V, 50-60 Hz. †Resistive or inductive load. *Capacitance load.

Full Wave Bridge- Type LDAD

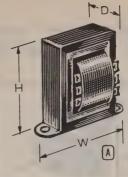
Stock	Mfr's	Rect.	Range of	Ma	x. DC Outp	ut	Size	Mtg. Centers		EACH		Packed
No.	Туре	Ckt.	AC Volts	Vt	A*t	V*	HxWxD	WxD	1-9	10-49	50-99	100-Up
705-008	7 6K63VBR	CT : Bridge	11.5-29.5 11.0-28.5	11 23	1.25	13.6 30.0	3x2½x2¾"	2x21/8"	11.70	9.36	6,32	4.89
705-008	8 6K64VBR	CT	12.0-29.6	11	4	14.5						
705-008	9 6K65VBR	Bridge CT	12.0-29.6	12	8	33.0 14.5	3%x2%x3"	2½×2%"	9.92	8.91	8.02	6.24
705-009	0 6K66VBR	Bridge	11.5-29.0 12.0-29.5	11.5	12	32.2 14.2	3%x3%x3½"	2½x2%"	14.25	12.82	11.88	9.25
705-009		Bridge	12.0-29.5	24	6	32.0	4%x3½x3%"	2¾x3¼″	19.52	17.40	15.43	12.00
705-009	1 6K67VBR	Bridge	12.0-29.0 12.0-29.0	23	15 8	14.5 32.0	4%x3%x5"	3x3¾"	27.24	24.51	22.06	16.62

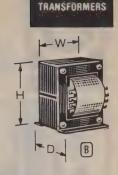
Control and Isolation Transformers

CONTROL TRANSFORMERS

Typical applications include: relays, pilot lamps, solenoids, small motors, speed changers, pumps, electronic tubes, heating elements, elevators, door openers, automatic musical instruments. 115-230 volts, 50-60 Hz AC.

						Mtg.			EACH		Bulk Pkd.
Stock No.	Mfr's Type	Fig.	Seco Parallel	ndary Series	Size Inches HxWxD	Ctrs. Inches	Wt., Lbs.	1-	10- 24	25- 99	100- Up
928-3000 928-3001 928-3002 928-3003 928-3004 928-5091 928-5092 928-5093 928-5094 928-5095	P-6375 P-6376 P-6377 P-6378 P-6379 P-8615 P-8616 P-8617 P-8618 P-8619	A A B B A A A B B	6V @ 2A 6V @ 4A 12V @ 4A 12V @ 8A 12V @ 16A 24V @ 0.5A 24V @ 2A 24V @ 2A 24V @ 8A	12V @ 1A 12V @ 2A 24V @ 2A 24V @ 4A 24V @ 8A 48V @ 0.25A 48V @ 1.5A 48V @ 1A 48V @ 2A 48V @ 2A	2%x2%x1% 2%x3%x1% 3%x3%x2% 3%x22%+x2% 4%x3%x3% 2%x2%x1% 3%x3%x1% 3%x3%x2% 4%x3%x2% 4%x3%x2%	2% 21% 3% 2%x2% 3x2% 2% 2% 2% 2% 2% 2%	1 1½ 2½ 4¼ 8 1 1½ 2½ 4¼	7.25 8.50 10.75 12.53 22.96 8.13 9.38 11.25 11.27	5.80 6.80 8.60 11.25 20.63 6.50 7.50 9.00 10.13	3.91 4.59 5.81 10.13 18.57 4.39 5.06 6.08 9.11	3.04 3.57 4.52 7.88 14.44 3.41 3.94 4.73 7.09 10.50





MINIATURIZED CONTROL TRANSFORMERS

• For High Speed Automatic Equipment

Provide trouble-free performance in high speed automatic equipment. Applications include: small motors, speed changers, pumps, automatic musical instruments, and many other mechanical and electric devices. All have 117

Ideal for Motors, Pumps, Speed Changers, Other Devices
 volt AC primary; 12, 24, 28 or 36 volt secondary. All types have lead wire terminations.



Primary 117 volts, 60 Hz AC; secondary, 12 volts. Lead wire terminations.

Stock	Mfr's	0.	condary .	A	Size	Wt.		EACH		Bulk Pkd.
No.	Type		Bridge H		Inches HxWxD	Lbs.	1- 9	10- 24	25- 99	180- Up
928-4046 928-4047 928-4048	P-8391	.150 .350 .700	.225 DC	.110 DC	1¼x2%x1¼ 1%x2%x1% 1%x2%x1%	1/4 1/3 2/3	5.00 5.00 5.38	4.00 4.00 4.30	2.70 2.70 2.90	2.10 2.10 2.26

Primary 117 volts, 60 Hz AC; secondary 24 volts CT. Lead wire terminations.

Canal	Mfr's			A	Size	Wt.		EACH		Bulk Pkd.
Stock No.	Type		condary . Bridge H		Inches HxWxD	Lbs.	1- 9	10- 24	25- 99	100- Up
928-4050 928-4051	P-8395	.200	.275 DC	.135 DC	11/4x21/4x11/4 11/8x21/6x11/8	1/4 1/3	5.88 5.88	4.76 4.70	3.18	2.47
928-4052 928-4053					1%x2%x1½ 2x3¼x1%	1 3/3	5.88 6.63	4.70 5.30	3.18 3.58	2.47 2.78

Primary 117 volts, 50-60 Hz AC; secondary 28 volts CT. Lead wire terminations.

Stock	Mfr's	Secondary	Amno	Size		Bulk Pkd.			
No.	Type	rms Bridge H		Inches HxWxD	Wt. Lbs.	1- 9	10- 24	25- 99	100- Up
928-4600 928-4601 928-4602 928-4603	P-8601 P-8602	.085 .110 DC .175 .225 DC .300 .350 DC .800 1.00 DC	.125 DC 1	3/8 x 2 3/8 x 1 3/8 1/2 x 2 1/8 x 1 5/8	1/4 1/3 2/3	5.13 5.50 5.75 6.75	4.10 4.40 4.60 5.40	2.77 2.97 3.10 3.65	2.15 2.31 2.41 2.84

Primary 117 volts, 50-60 Hz AC; secondary 36 volts CT. Lead wire terminations.

Stock	Mfr's	900	condary	Amno	Size	Wt.		EACH		Bulk Pkd.
No.	Туре	rms	Bridge H	alf-Wave	Inches HxWxD	Lbs.	1- 9	10- 24	25- 99	100- Up
928-4611 928-4612 928-4613	P-8612	.300	.350 DC		%x2%x1% 1/2x2%x1% 1/4x3/4x2		5.00 5.63 6.88	4.00 4.50 5.50	2.70 3.04 3.71	2.10 2.36 2.89

LOW CURRENT CONTROL TRANSFORMERS

Three isolated secondaries to provide many combinations of output voltages and currents. May be series or parallel connected, Applications include: pilot light, miniature relays, tow-current, low-voltage power supplies. Lead wire terminations. Color-coded (Two black leads for primary; brown and silver leads for 1st secondary; blue and red leads for 2nd secondary; green and yellow leads for 3rd secondary, with green/yellow center tap lead). 117 V, 60 Hz primary, 12-V secondaries.

						EACH		Bulk Pkd.
Stock No.	Mfr's Type	Amps Each Sec.	Size Inches	Wt., Lbs.	1-9	10- 24	25- 99	100- Up
928-4020 928-4021 928-4022 928-4023	P-8361 P-8362 P-8363 P-8364	.10 .15 .25 .50	1%x2x1% 2x2%x1% 2%x2%x1% 2%x2%x1% 2%x2%x2%	1/8 1/4	7.38 6.13 7.88 8.50	5.90 4.90 6.30 6.80	3.99 3.30 4.25 4.59	3.10 2.57 3.31 3.57



ISOLATION TRANSFORMERS

All have electrostatic shields grounded internally to core. Rms insulation test: 1500 V. *Primary is tapped for 125, 115 and 105 V; 115-volt secondary. †Isolation testing

transformer with 117 V primary; has tapped secondary with three standard receptacles for 105, 115 and 125 volts. \ddagger 117 V primary and 117 V secondary.

Carel	886-1-		Circles in the circles	1	Wt.,		EACH		Bulk Pkd.
Stock No.	Mfr's Type	Fig.	Size Inches HxWxD	Watts	Lbs.	1- 9	10- 24	25- 99	100- Up
928X2060 928-2075 928-2076 928X2079 928-3010 928-3014 928-3012	P-6125* P-6160* P-6161* P-6298* P-6410‡ P-6413 P-6415†	C D D D	7/kx5%x7% 411/16x3%x3% 411/16x3%x5½ 7/kx5%x7% 3/x212/16x3% 1/x2/x1% 5/x4%x51/16	1000 100 250 500 50 1500 350	35 7 141/4 28 4 17	141.95 25.01 30.90 91.85 12.10 7.00 38.58	127.53 22.58 27.76 82.52 10.88 5.60 34.66	114.78 20.28 24.98 74.27 9.79 3.28 31.19	89.27 18.80 19.43 57.76 7.62 2.94 24.26



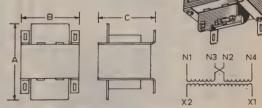


CONTROL TRANSFORMERS FOR VARIED APPLICATIONS

Single phase transformers with triple voltage: 240/480—120 V, 50/60 Hz; 230/460—115 V, 50/60 Hz; 220/440—110 V, 50/60 Hz. For control circuits incorporating electromagnetic and electronic devices — solenoids, valves, contractors, relays, rectifiers and solid-state components—in applications such as motor control, processing equipment and machine tools. 550°C temperature rise. Low resistance types. Wiring diagram on metal plate attached to unit. Slotted feet for simplified installation. High quality core steel.

- Meet or Exceed NEMA, ANSI AND NMBTA Standards
- Exclusive Swing Klip Series Parallel Connecting Links
- For Motor Control, Processing Equipment and Machine Tools

Stock	Mfr's		NAED EPD	Dim	ensio	กร	Wt.		EACH	
No.	Type	KVA	No. 5888	A In.	B in.	C In.	Lbs	1-4	5-9	IQ-Up
	35-10-050 35-10-075		28402 28403	3 ⁵ / ₁₆ 3 ¹ 9/ ₃₂	3 3¾	2½ 3½		15.28 19.03		



ISOLATION TRANSFORMERS

Not illus. Types N-68X and N-471A have split primaries; types N-73A and N-74A, split secondaries. Primary, 50-60 Hz AC.

Stock	Mfr's	VA	Pri.	Second	iary	Size Inches	Wt.,		EACH		lulk Pkd.
No.	Туре		Volts	V±5%	A	HxWxD	Lbs.	1-9	10-24	25-99	100-Up
954-2551	N-51X*	35	115	115	.3	2%2X311/16X21/8	13/4	9.33		5.04	
954-2568	N-68X°	50	115/130	115	.435	2%32X311/16X21/8	13/4			6.05	
954-2554	N-54M	150	115	115	1.3	31/8 x 38/32 x 41/4	63/4	18.60			13.15
954-2573		150	115	115/230	.65	3%x3332x4	7	15.58			11.02
954-2574		150		57.5/115		31/8×39/32×4	7	15.43			10.90
954-2591	N-471A	300	220/440	115	2.6	4%x315/16x41/2	101/4	24.00	21.50	18.04	16.90

POWER-LINE ISOLATION TRANSFORMERS

Ultra shielded. Coupling less than 0.10 pF. MIL Type TF4RX01YY — meet MIL-T-27B specifications. Primary, 115 volts, 50-60 Hz; secondary, 115 volts; *Industrial rating.

Stock	Mfr's	Watts	Size Inches	Mtg.	Wt.,		EACH	
No.	Type	1 * 1	HxWxD	Ctrs.	Lbs.	1-4	5-9	10-Up
964-4001	HIT-1	60	31/32X41/32X41/32	3%x3%	5½	119.91	95.93	86.33

STEP-DOWN AUTOFORMER (50-60 Hz)

Stock	Mfr's	Out.	Primary	Secondary	Size Inches	Wt.,		EACH		Bulk Pkd.
No.	Type	VA	Volts	V±5% A	HxWxD	Lbs.	1-9	10-24	25-99	100-Up
954-2501	N-1X	50	230	115 0.435	28/32X311/16X2	11/2	7.58	6.00	3.80	3.57

Allied® Multi-Purpose Transformers



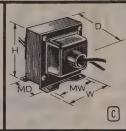
Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are

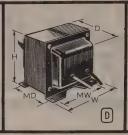
shipped bulk-packed F.O.B. Chicago, III. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or contact your nearest Allied facility.

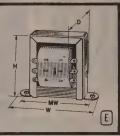


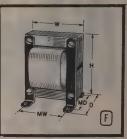












230-TO-115 VOLT STEP-DOWN AUTOTRANSFORMERS

Well-built units to reduce 220-250 volts, 50-60 Hz AC to 110-125 volts. Black enamel finish.

With 8-ft. cord and plug, except † types. Female outlet on case, except † types.

Stock	Mfr's	Fig.	Input	Output	VA	Size	Mtg. Ctrs.	Wt.,		EACH		Bulk Packed
No.	Type		Volts	Volts	Outputs		MW×MD	Lbs.	1-9	10-49	50-99	100-Up
705-0092 705-0093 705-0019 705-0029 705-0020	6K68HF† 6K69HF† 6K12VCP 6K22VCP 6K13VCP	A A A	230 230 230 230 230 230	115 115 115 115	20 40 80 100 150	2x3/x2 2%sx3%sx2/s 3%x3x3/s 3/x27/x3% 4x3%x3%	2 ¹³ / ₁₆ 3½ 2½x1½ 2½x2 2½x2½	1 ¼ 1 ¾ 3 ¼ 4 4 ¾	5.30 6.87 12.70 13.53 13.46	4.24 5.50 10.16 11.76 12.10	3.73 4.60 8.86 9.80 10.10	2.98 3.85 7.14 7.97 8.20
705-0021 705-0022 705-0030 705-0027 705-0031 705-0028	6K14VCP 6K15VCP 6K24VCP 6K20VCP 6K25VCP 6K21VCP	A A A A A	230 230 230 230 230 230 230	115 115 115 115 115 115	250 500 750 1000 1500 2000	4%x3%x4¼ 4%x3%x4¼ 4%x3%x4% 5½x4%x5 5½x4%x5% 6x4½x5% 6x4½x6%	3x2 ¹³ / ₁₆ 3x3 ⁵ / ₁₆ 3½x3 ¹ / ₄ 3½x3 ¹ / ₂ 3 ⁷ / ₁₆ x3 ³ / ₁₆ 3 ⁷ / ₁₆ x4 ³ / ₆	7¾ 10 13¾ 14¾ 19 25	15.51 32.73 33.12 54.42 48.62 52.50	13.96 28.36 28.00 45.35 41.04 46.60	11.68 21.97 25.79 36.28 37.73 42.84	10.97 20.02 20.50 32.65 30.04 33.98

115-TO-230 VOLT STEP-UP AUTOTRANSFORMERS

For operation of 230-V appliances from 110-125 V 50-60 Hz AC. With 8-ft. cord and AC outlet.

705-0124	6K97VCP	A	115	230	80	3%x3x3%	2½x1¾	3½	12.70	10.30	8.50	7.25
705-0084	6K60VCP	A	115	230	150	4x3%x3%	2½x2¼	4¾	14.55	12.32	11.30	9.02
705-0125	6K98VCP	A	115	230	500	4%x3%x4%	3x3⁵/6	10¼	26.30	22.22	20.24	16.27

VARIABLE-VOLTAGE TRANSFORMER

705-0105	6K81VCP	Α	117	105-115-125	350	5½x4%x5¾	3½x3½	16	34.72	31.19	28.07	21.83

ISOLATION TRANSFORMERS

Reduce shock hazard, protect equipment. 6-ft. cord, plug and receptacle, except * types. 115 VAC output.

U.L. RECOGNIZED CONTROL TRANSFORMERS

For 120-V or low voltage 24-V line. 50/60 Hz. 240-480-V primaries must be series connected for 480-V; parallel connected for 240-V. 277-V pri- to source and other to neutral wire. * Mounts to standard conduit box.

Stock	Mfr's	Fig.	Pri.	Sec.	VA	Size	Mtg. Ctr's.		EACH		Bulk Packed
No.	Type		V	V	Rating	H x W x D Inches	W x D In.	1-9	10-49	50-99	100-Up
705-0172 705-0173 705-0174 705-0175	6K 147 6K 148 6K 149 6K 150	BCCD	120 120 120 120	24 24 24 24	50 100 150 250	4 ⁵ / ₃₂ ×4 ⁵ / ₃₂ ×4 3½×3¾×4½ 3½×3¾×5 4×4½×4½	3½x1 ¹³ / ₁₆ 3½x2 ⁹ / ₁₆ 3¾x3 ³ / ₁₆	13.80 16.90 17.47 26.12	11.10 14.29 14.79 22.11	9.20 13.12 13.59 20.34	7.95 10.45 10.80 16.19
705-0180 705-0181	6K 155 6K 156	B C	480/240 480/240	24 24	100	4 ⁵ / ₃₂ ×4 ⁵ / ₃₂ ×4 3½×3¾×4¼	31/4×1 13/16	14.60 17.92	11.70 15.15	9.75 13.93	8.00 11.08
705-0182 705-0183 705-0184	6K 157 6K 158 6K 159	CDB	480/240 480/240 277	24 24 120	150 250 50	3½x3¾x5 4x4½x4¾ 45%2x45%2x4	3½×2½6 3¾×3¾6	18.62 27.87 14.00	15.75 23.60 11.25	14.50 20.65 9.35	11.53 17.25 8.00
705-0186 705-0187	6K 161	C	277	120	150	3½x3¾x5	31/4×29/16	17.75 26.70	15.00 23.70	13.80 20.76	10.99 16.55

CONTROL TRANSFORMERS

Automation types for high-speed automatic equipment. Adapted to relays, pilot lamps, solenoids, small motors, etc. Also use in high current, low voltage power supplies. Secondaries have two identical wind-

ings for series or parallel operation. Primaries operate from either 115 or 230 V, 50-60 Hz AC.

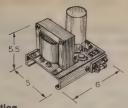
Stock	Mfr's	Fig.	Para	llel Sec.	Serie	s Sec.	Size	Mtg.		EACH		Bulk Packed
No.	Туре		Voits	Amps	Volts	Amps	HxWxD	Ctrs.	1-9	10-49	50-99	100-Up
705-0101 705-0102 705-0103 705-0104 705-0144	6K77VFL 6K78VFL 6K79VFL 6K80VBR 6K119VBR	EBEFF	6 12 12 12	2 4 4 8 16	12 12 24 24 24 24	2 4 8	2%x2%x1% 2%x3%x2 3%x3%x2% 3%x2%x3 4%x3%ex3%	2 % 213/16 31/8 21/4×23/8 23/4×3	6.53 7.65 9.67 13.43 19.79	5.22 6.12 7.74 10.74 16.93	3.52 4.13 5.23 9.12 14.84	2.74 3.21 4.07 7.09 12.07

14

Voltage Regulators and Autotransformers



TYPE C-214
ECONOMY LINE
DC REGULATOR



- Heavy Duty Construction
- For Driving Relays, Solenoids, Motors and Other Surge Type Loads

Custom DC power supply in an economical package, provides high quality and reliability. Heavy duty construction for long, dependable service. Specifically designed for driving relays, solenoids, motors and other surge type loads. Provides DC output of 28 volts at 2.5 amperes. With an AC input of 115/230 volts ±10%; single phase, 50 to 60 Hz. Also designed for pulsed loading of up to 4 amperes total when operating with 1 ampere continuous load and pulsed at 20 MS intervals. Line regulation: ±2% (105-125/210-250 volts line voltage range). Load regulation: ±2% (no-load to full load range). Ripple: 0.1% rms or 10 mv maximum. Operating temperature of 0°C to 40°C. Can be used up to 70°C with derating. Overall size: 6″ x 5″ x 6.5″. Shpg. wt. 6 lbs.

Stock No.	Mfr's	Output	EACH					
	Type	Volts	1-9	10-24	25-Up			
983-1300	C-214-0EM	28 VDC	57.61	46.00	43.50			

C-3000 SERIES SOLID STATE RMS CLIPPING REGULATORS



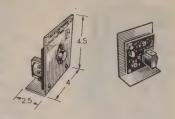
- Clip-AC™ Regulation for Constant Output
- Line Transient Suppression
- Quiet Operation—No Magnetic Noise

True rms clipping regulators hold output voltage constant under varying conditions of line, load, frequency and power factor. Peak clipping regulation technique gives line regulation of $\pm \frac{1}{2}\%$ rms for $\pm 10\%$ line voltage change; load regulation $\pm \frac{1}{2}\%$ rms for load change from 10% to full rated load. AC input: 100-130 volts, single phase, 47 to 420 Hz. AC output: 117 volts nominal. Response time: less than 50 microseconds. Surge output: 400% of full power rating for 10 seconds. Line transient suppression; excellent surge loading characteristics. Silicon transistor circuit. Temperature range -20° to $+50^\circ$ C. Efficiency, 75% minimum at nominal input voltage and full load.

Type C-3003: $3 \times 4 \times 2.8''$, Shpg. wt. 1½ lbs. Type C-3012: $3 \times 4.15 \times 4.5''$. Shpg. wt. 3.2 lbs. Type C-3025: $5 \times 6.12 \times 9.5''$. Shpg. wt. 6½ lbs.

Stock	Mfr's	Output	EACH				
No.	Type	VÀ	1-9	10-24	25-Up		
983-3003	C-3003	30	63.87	51.00	48.50		
983-3012	C-3012	120	67.05	53.55	50.90		
983-3025	C-3025	250	117.73	94.00	89.30		

AC VOLTAGE REGULATOR



- Clip-AC™ Type Peak Clipping Regulator
- Small in Size
 Light in Weight
- Dependable Solid State Circuitry

TYPE CVR-120. Produces a constant peak-to-peak output by symmetrically clipping the peaks of unregulated input voltage. AC input; 100 to 130 V, single phase, 47 to 420 Hz. AC output: 135 V peak, 105 V rms typical at 130 V input and full load. Peak regulation: line ±1% for ±10% line voltage fluctuation; load ±1% for no-load to full rated load. Response time: 10-50 microseconds. Operating temp.: up to 40°C at full load. Internal overcurrent protection. Size, 4x4½x2″.

Stock	Mfr's	Output	EACH					
No.	Type	VA	1-9	10-24	25-Up			
983-3200	CVR-120	120	33.18	26.50	25.00			

VARIABLE AUTOTRANSFORMERS

Dependable variable autotransformers for industrial and laboratory applications. Proprietary process bonds the winding to the core assembly for a secure, stable commutator surface, free of distortion, even under severe overload. Design insures longer life with a minimum of maintenance.

PORTABLE CORD AND PLUG TYPE-120 VOLTS INPUT

Prefix "3PN" indicates 3-prong cord, plug and receptacle; prefix "2PF" indicates 2' prong cord, plug and receptacle. All models are housed in a rugged steel enclosure and supplied

with input linecord and plug with matching NEMA standard receptacle, on-off switch, fuse, pilot light. For 120 volt AC input.

Stock	Mfr's	Fig.	Input	Output		Size, Inches	Wt.,		EACH		
No.	Type	ŭ	Volts	Volts	Amps	kVA	(AxBxC)	Lbs.	1-9	10-24	25-Up
927-2171 927-2172 927-2170 927-2302	2PF171 2PF371 2PF501 3PN501	A A A	120 120 120 120	0-132 0-120/140 0-120/140 0-120/140	1.75 3.75 5.0 5.0	0.23 0.53 0.70 0.70	3%x3%x3½ 4½x6x5% 4½x6x5% 4½x6x5%	3½ 7 9 9	30.28 36.32 39.96 46.00	25.00 30.00 33.00 38.00	22.50 27.00 29.70 34.20
927-2175 927-2003 927-2339 927X2309	2PF1010 3PN1010 3PN1510 3PN2210	8 8 8 8	120 120 120 120 120	0-120/140 0-120/140 0-120/140 0-140	10.0 10.0 15.0 22.0	1.4 1.4 2.1 3.1	6%x5x4%s 6%x5x4%s 9x6%x6% 95xx7%x4%	13 13 22 25	42.38 213.55 81.13 117.45	35.00 170.50 67.00 97.00	31.50 153.45 60.50 87.00

SINGLE PHASE MODELS (PANEL OR BENCH MOUNTING)

Rugged and reliable units offer precise voltage control with minimum maintenance and long life. Input frequency on all models is 50/60 Hz except *60 Hz only with over-voltage output.

Type numbers without suffix are open types for panel or bench mounting. Types with suffix (CT) have coll and terminals housed in a metal enclosure, for bench or conduit mounting.

SINGLE PHASE MODELS-120 VOLTS INPUT

Stock	Mfr's	Fig.	Input		Output		Size, Inches	Wt.,		EACH	
No.	Type		Volts	Volts	Amps	kVA	(AxBxC)	Lbs.	1-9	10-24	25-Up
927-3171 927-3201 927-3251 927-3291 927-3375	171° 201 251° 291 371°	00000	120 120 120 120 120	0-120/132 0-120/132 0-120/132 0-120/132 0-120/140	1.75 2.0 2.5 3.0 3.75	0.23 0.26 0.33 0.39 0.53	213/16x213/16x21/16 213/16x213/16x21/18 213/16x213/16x21/16 213/16x213/16x21/16 213/16x213/16x21/16 33/4x33/4x31/4	3 3 3½ 3½ 5	15.13 15.56 16.47 16.77 23.01	12.50 12.85 13.60 13.85 19.00	11.25 11.57 12.24 12.47 17.10
927-5501 927-6010 927-6011 927X7501	501 1010 1010CT 1510	CCEC	120 120 120 120 120	9-120/140 0-120/140 0-120/140 0-120/140	5.0 10.0 10.0 15.0	0.70 1.4 1.4 2.1	3½x3¾x3½ie 5½ex5x4¾e 6½x5x4¼e 65x6½x4¾	6 12 12 20	23.61 31.48 41.17 60.54	19.50 26.00 34.00 50.00	17.55 23.40 30.60 45.00
927X7502 927X8001 927X8006	1510CT 2510 2510CT	F C F	120 120 120	0-120/140 0-120/140 0-120/140	15.0 25.0 25.0	2.1 3.5 3.5	9x63/8x47/8 83/16x75/8x41/8 95/8x75/8x41/8	21 23 24	70.50 83.54 99.28	60.00 69.00 82.00	55.75 62.10 73.80

SINGLE PHASE MODELS-240 VOLTS INPUT

917-6120	1020	C	240	0-240/280	3.5	0.98	5½6x5x4¾6	12	37.53	31.00	27.90
927X7507	1520		240	0-240/280	9.5	2.7	6%x6%x4¾	20	60.54	50.00	45.00
827X8500	2520	C	240	0-240/280	10.0	2.8	83/16x75/6x41/6	23	83.55	69.00	62.10

G ISOLATED VARIABLE TRANSFORMERS

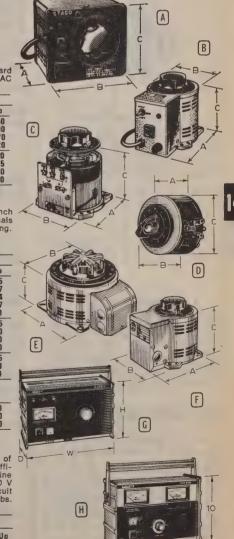
0-140 V output isolated from input. DC output isolated from AC output. Either side of output can be grounded independently of supply line. UL listed, CSA approved. 0-150 V voltmeter; circuit breaker; 6-ft. cord with NEMA std. 3-prong plug, receptacle. EJ401V, 10 x 151/6 x 57/6", EJ901V, 10 x 161/6 x 71/2".

Stock	Mfr's		put, ips	Wt.	EACH			
No.	Туре	AC	DC		1-4	5-Up		
927X2002 927X2003	EJ401V EJ901V	4.0 9.0	4.0 9.0	30 43	151.55 213.55	121.00 170.00		

H DELUXE VARIABLE TRANSFORMERS

Portable. Isolated AC and DC 1000 mA outputs, 10% of total rating. Laminated silicon steel cores. To 98% efficiency; better than 5% regulation. Switch selects "line voltage" or "over voltage" output (0-120/140 V). 120 V input. Ventilated; 6-ft. cord, receptacle; thermal circuit breaker protection; banana jacks. UL, CSA. Wt. 33 lbs.

Stock	Mfr's	Out-		EACH				
No.	Туре	Amps	Size, In.	1-4	5-9	10-Up		
927X1010	E1010VA	10.0	10x151/16x51/8	187.88	150.00	135.00		

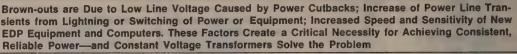


51/8

Constant-Voltage Transformers

CV TRANSFORMERS TO SOLVE ANY VOLTAGE PROBLEM

- Ultra-Fast Regulating Action
- Response Time 1½ Hz or less
- Fully Automatic, Continuous Regulation
- No Manual Adjustments Required
- Self-Protecting Against Short Circuits
- Negligible External Field



SINUSOIDAL TYPES CVS-60 Hz DUTY

Nominal Size (Inches)

Static-magnetic voltage regulators accept input variations up to ±15% and regulate to ±1%. Response time 11/2 Hz (25 msec) or less. CVS: less than 3% harmonic distortion at full load; newer CVS delivers sine wave output; recommended for all AC applications. CVN: transformer for DC, delivers square wave

and average 20% rms harmonic content. Figure A= exposed core, end housings, screw type terminals in outlet box; Figure B = drawn case, integral capacitor; Figure C = exposed core, end bells, separate capacitor. Suffix F in Stock No., shipped FOB Elk Grove,





A



STOCK		i Marrs	Anirade uarina		VA	IROMINION SIZE	(Inches)	Fig.	Adapt.	Lbs.		C. T. C. T.	
	No.	Туре	Output	Input	VA	Outline	Mounting	rig.	Kit	LUS.	1-9	10-49	50-Up
	921-3150	23-13-030-2	118	95-130	30.	61/4x4x53/16	3x3½	A ⁻	d .	.8	49.68	40.75	35.75
	921-3200	23-13-060-2	118	95-130	60	615/1ex4x53/1e	3x31/2	A:	d :	10	59.29	48.50	42.75
	921-3600	23-23-060-2	118	190-260/380-520	60	615/1ex4x53/1e	3x3½	Α	d	10	64.71	53.00	47.70
	921-3300	23-22-112-2	118	95-130/190-260	120	8x4x53/10	3x3½	Α	d	14	75.99	62.25	51.15
	921-3650	23-23-112-2	118	190-260/380-520	120	8x4x53/16	3x3½	'A	- · d - ·	14	80.58	66.00	59.40
	921X3350	23-22-125	118	95-130/190-260	250	9%x5%x7%e	41/6×43/4	- A	Ь.	28	103.12	84.75	76.28
	921U3700	23-23-125	118	190-260/380-520	250	10x5%x7%	41/6×43/4	Α	b .	49	109.80	90.00	79.25
	921U3400	23-22-150	118	95-130/190-260	500	121/1ex9x61/1e	5%x8%	Α.	3	45	168.25	138.00	124.20
	921U4250	23-26-150	118/236	190-260/380-520	500	127/16X9X67/18	5%x8%	A	C	46	166.58	136.75	123.08
	921F3800	23-25-175	118/236	95-130/175-235 190-260	750	1613/1ex9x67/1e	5%x8%	A	c ·	54	215.01	176.50	164.29
	921F3850	23-25-210	118/236	95-130/175-235 190-260	1000	1715/16×9×67/16	5%x81/a	A	€	72	262.19	215.00	193.50
	921F3900	23-25-215	118/236	95-130/175-235/ 190-260	1500	195/ex101/1ex91/32	315/1ex113/4	A		128	353.21	289.75	255.00
	921F3950	23-25-220	118/236	95-130/175-235/ 190-260	2000	1915/16x123/4x1011/16	4½x11¾	Α		140	446.31	366.00	311.10
	921F4350	23-26-220	118/236	190-260/380-520	2000	1915/16x123/4x1013/16	4½x11¾	Α		148	447.56	367.00	311.95
	921F4000	23-25-230-3	118/236	95-130/175-235 190-260	3000	21%x12%x101//s	67/16X1134	A		194	620.41	508.75	434.70

CURRENT LIMITATION

As a load is increased beyond the rated value, the output voltage drops rapidly to zero. At short-circuit, the output current is limited to approx. 125-200% of rated value. Units can be operated indefinitely at short-circuit without damage.





Stock No.

921-1000

921-1800

921-1850

921-1150

921-1200

921-1250

921X1300

921X2250

921X2300

92172350

921F2800

Mfr's Type

20-10-015

20-14-015

20-14-030

20-13-030-2

20-13-060-2

20-13-112-2

20-13-115

20-22-125

20-22-150

20-22-210

20-25-220

Voltage Reading

Input 95-130

95-130

95-130

95-130

95-130

95-130

95-130

95-130/190-260

95-130/190-260

95-130/190-260

95-130/175-235/ 190-260

Output

118

118

118

118

118

118

118

118

118

118

118/236

SINUSOIDAL TYPES CVS-50 Hz DUTY

921X3450	23-22-612	118	95-130/190-260	120	8%x5%x7%s	4½x4¾	Α	b -	21	87.68	72.00	64.80
921X3500	23-22-625	118	95-130/190-260	250	11%1ex9x67/1s	5%x81/a	A	С	35	118.15	97.00	87.30

NORMAL HARMONIC TYPES CVN-60 Hz DUTY

Outline

5% ex2%x3%

45/16x23/8x27/18

45/16×25/1×35/16

613/18x4x53/18

7%x4x53/18

8%x5%x71/10

111/1ex615/1ex67/1e

125/1ex615/1ex67/1e

151/6x615/1ex67/1e

20x101/2x1011/16

6x4x53/4

15

15

30

30

60

120

150

250

500

1000

Nominal Size (Inches)

Mounting

51/1ex11/8

13/4×11/6

1%x2%

3x33/

3x31/2

3x31/2

41/4×43/4

4%1ex615/10

5% x61/8

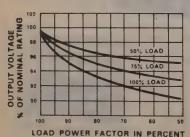
4% ax6 1/2

4%16X91/2

LOAD POWER FACTOR

"Median" value of output voltage will vary from nameplate rating if load has power factor other than that for which the transformer was designed. Load regulation will also be relatively greater as inductive load power factor is decreased. However, resulting median values of output voltage will be regulated against line changes at any reasonable load or power factor.

Change in "Median" Output Voltage Versus Load Power Factor



CORD/RECEPTACLE ADAPTER KITS FOR "A" STRUCTURES

The convenience of an input plug and output receptacle on CV transformers in "A" type housings. Easily wired to standard terminal arrangement located under top plate of housing. Correct part number is indicated under "Adapter Kit" in lists for CVS and CVN types.

Use Adapt Kit

C

5

10

12

25

36

48

Fig.

8

C

C

Α d

Α Ч

Α d

A h EACH

50-Up

22.75

26.50

30.75

36.25

47.75

57.75

70.50

107.75

182.70

10-49

25.75

30.00

35.00

42.50

54.25

65.75

122.50

205.00

1-9

31.31

36.74

42.59

50.52

65.97

80.58

97.70

149.47

247.58

Stock	Mfr's	Style	Input	Output	EACH		
No.	Type	Code	Cord	Recept.	1-9	10-Up	
921-6200	999-104	d	2-wire	2-wire	14.25	12.40	
921-6100	999-019	b	3-wire	3-wire	14.25	12.40	
921-6000	999-009	c	2-wire	2-wire	14.25	12.40	
921-6150	999-020	C	3-wire	3-wire	14.25	12.40	

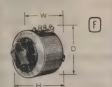


















REPLACEMENT BRUSHES

For use with Variable Transformers.

Stock	Mfr's	For	EACH
No.	Type	Series	
931-2805	RB10B	10B	3.75
931-2809	RB116B	116B, 117	
931-2816	RB236	236B	6.58
931-2820	RB1256D	1256D	9.38

SINGLE-PHASE AND THREE-PHASE CONTINUOUSLY VARIABLE TRANSFORMERS

Deliver continuously adjustable output voltage from AC line. Zero waveworm distortion, good regulation, conservative ratings. Enclosed for plane-surface mounting except 10B, 10B-40, 21, 22, and other types with suffix "U" are open types for panel mounting. Mfr's Types 21, 22, 126, 136B, 226, 236B, 1156D and 1256D are both panel and surface mounting. Suffix "T" indicates terminals enclosed in metal box. † in-

dicates rating when mounted on metal panel; for non-metallic panel, or bracket mounting, derate to 1.75 amps with corresponding reduction in maximum kVA. ‡ indicates rating when mounted on metal panel; derate to 0.5 amp when mounted on non-metallic panel or bracket. All are for 50-60 Hz except

SINGLE-PHASE TYPES

Portable Types 116B and 216B have 2-wire parallel blade input cord-plug sets and output receptacles. *indicates unit is equipped with 3-wire plug and re-

ceptacle. Type 22 incorporates a coil-winding tech-nique designed to provide higher voltage ratings without increase in size or weight.

 Stock	Mfr's	Fig.	Input		Output		Max. Size (D W H)	Wt.,		EACH	
No.	Туре	.,9.	Volts	Volts	Amps	kVA	Inches	Lbs.	1-9	10-24	25-Up
931-5600 931-5610 931-2730 931-5290 931-5420	\$117BT \$117BU \$0117U 21 116BU	BCCDC	120 120 120 120 120	0-120 0-120 0-120 0-140 0-140	12.0 12.0 12.0 4.5 10.0	1.4 1.4 1.4 0.63 1.4	71/8x51/8x61/2 5x51/8x53/4 41/8x41/4x511/16 31/8x33/4x41/2 5x51/8x53/4	12 11 11 6 11	46.88 36.32 36.32 25.68 33.82	37.50 29.00 29.00 20.50 27.00	33.75 26.10 26.10 18.45 24.30
931-2700 931-5700 931-5730 931X5800 931X5820 931X5900	0116U 126 126U 136B 136BU 146	CAEAEA	120 120 120 120 120 120	0-140 0-140 0-140 0-140 0-140 0-140	9.0 15.0 15.0 22.0 22.0 30.0	1.3 2.1 2.1 3.1 3.1 4.2	4%x4%x5 ¹ / ₁₆ 6%x6%x5% 4%x6x6 ³ / ₄ 8%x7%x6% 4 ⁵ / ₁₆ x7%x8 ¹ / ₁₆ 11x10x6%	11 17 16 24½ 24 38	33.82 68.89 62.00 97.70 90.18 156.56	27.00 55.00 49.50 78.00 72.00 125.00	24.30 49.50 44.55 70.20 64.80 112.50
931-6020 931-2760 931-6100 931-6110 931-2790	216BU Q216U \$217BT \$217BU \$Q217U	CCBCC	240 240 240 240 240 240	0-280 0-280 0-240 0-240 0-240	3.5 3.5 5.0 5.0 5.0	0.98 0.98 1.2 1.2	5x51/2x53/4 47/2x41/4x511/16 71/2x51/2x61/2 5x51/2x53/4 47/2x41/4x511/16	11 11 12 11 11	40.71 40.71 53.24 43.22 40.71	32.50 32.50 42.50 34.50 33.00	29.25 29.25 38.25 31.05 29.70
931-5350 931-6200 931-6230 931X6320 931X6340 931X6400	22 226 226U 236B 236BU 246	D A E A E A	240 240 240 120-240 120-240 120-240	0-280 0-280 0-280 0-280 0-280 0-280	2.25 7.5 7.5 10.0 10.0 15.0	0.63 2.1 2.1 2.8 2.8 4.2	4%16x3%x413/16 6%x6%x5% 4%x6x63/4 8%x73/xx6% 45/16x73/4x811/16 11x10x6%	6 17 16 23¾ 23¼ 38	37.58 68.89 62.00 97.70 90.18 156.56	30.00 55.00 49.50 78.00 72.00 125.00	27.00 49.50 44.45 70.20 64.80 112.50
931-5230 931-5070 931-5200 931-5400	§10B-40 *3PN117B §10B 116B	F G F G	40 120 120 120	0-40 0-120 0-132 0-140	7.0 12.0 +2.25 10.0	0.28 1.4 0.3 1.4	2½x2½x3½ 7½x5½x6½ 2½x2½x3½ 7½x5½x6½	3.3 12 2.4 12	21.29 59.50 17.22 45.72	17.00 47.50 13.17 36.50	15.30 42.75 12.38 42.85
931-5065 931-5080 931X5090 931-5260	3PN116B *3PN126 *3PN136B 12	GHHF	120 120 120 240	0-140 0-141 0-140 0-240	10.0 15.0 22.0 ‡0.7	1.4 2.1 3.1 0.17	7%x5%x6½ 8%x6¼x5% 10¼x7¾x6% 2%x2%x3%	12 18.5 26½ 2.5	53.24 87.06 126.50 26.94	42.50 69.50 101.00 21.50	38.25 62.55 90.90 19.35
931-6000 931-5110 931-5120 931X5130	216B §3PN217B *3PN226 *3PN236B	G H H	240 240 240 240	0-280 0-240 0-280 0-280	3.5 5.0 7.5 10.0	0.98 1.2 2.1 2.8	7%x5%x6½ 7%x5%x6½ 8%x6%x5% 10%x7%x6%	12 12 18.5 25¾	54.49 63.26 87.06 126.50	43.50 50.50 69.50 101.00	39.15 45.45 62.55 90.90

Stock No.	Mfr's Type	Fig.	Input Volts	Volts	Output	kVA	Max. Size (D W H) Inches	Wt., Lbs.	1.0	EACH 10-34	35-Un
					Amps				1-3		
931X6700	1156D	J	120	0-140	50.0	7.0	15%x13%x9%	79	230.46	184.00	162.00
931X7300	1256D	J	240	0-280	28.0	7.8	151/8×137/8×93/8	79	230.46	184.00	162.00

THREE-PHASE TYPES (Not Illus.)

Consist of single units ganged together; wye connected. For 50-60 Hz (§60 Hz only)

931-5210	§10B-3	240	0-240	†2.2	0.94	8%x3%x3%	8½	80.79	64.50	58.05
931-5295	§21-3	240	0-280	4.5	2.18	10%x4%x5	17	115.23	92.00	82.80
931X5450	§116BT-3	240	0-280	10	4.8	7%x5%x18%	36	156.56	125.00	112.50
931Z5810	126U-3	240	0-280	15.0	7.27	71/4x71/4x151/6	49	222.95	178.00	160.20
931X5860	§136B-3	240	0-280	22.0	10.66	91/6x83/4x173/4	76	229.21	183.07	164.70

METERED-KNOB VARIABLE TRANSFORMERS

Incorporates a large, easy-to-read voltmeter inside the con-trol knob. Ideal for applica-tions where close voltage con-

tions where close voltage control is necessary. Voltmeter has full scale accuracy of ±3%; insensitive to stray magnetic fields; reads from 0 to 150 volts AC. Unit operates variable AC output of 0 to 140 volts, Has on-off switch, input cord, output receptacle and fuse. Provision for limiting output to line voltage. Maximum Constant Ratings: 10.0 amps, 1.4 kVA. Size, 61% x 5½ x 7½ ". Shpg. wt. 12 lbs.



N116BK N116B

LABORATORY VARIABLE AC TRANSFORMERS

Zero waveform distortion. Types N116B and N116BK have ruggedized coils for greater overload resistance, higher current ratings. † Type N116BK has metered knob. For single-phase 120 V, 50-60 Hz AC input except N10B, for 60 Hz AC only. Size: Type N10B, $61\%_6$ x 41% x $32\%_2$ "; Type N116B, $9\%_6$ x 53% x $7.1\%_2$ ". Shpg. wt.: N10B, 5 lbs.; N116B and N116BK, 15 lbs.

		Consta	nt Cur.			EACH	
Stock	Mfr's	V	Max.	Max.	1-	10-	25-
No.	Type		A	kVA	9	24	Up
931-2550	N10B	0-132	2.25	0.30	40.71	32.57	29.25
931-2560	N116B	0-140	10	1.4	66.38	53.00	47.70
931-2570	N116BK†	0-140	10	1.4	121.49	97.00	87.30

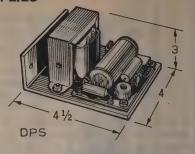
Regulated DC Power Supplies

DPS SERIES REGULATED 20-WATT DC POWER SUPPLIES

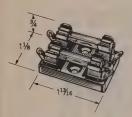
Regulated DC power supplies for use in a wide variety of applications. AC input 115 volts $\pm 10\%$, single phase, 57 to 63 Hz. Four different models for 5/6 V, 12/15 V, 24 V or 200 V. All silicon, solid-state construction for superior dependability and long-life reliability. Regulation ±1% each for line and load; filtered to 0.3% rms ripple, overload protected by automatic recovery foldback current limiting. Automatic short circuit protection. Size 4½x4x2½". Av. shpg. wt. 2 lbs. Compatible OVP-2 over voltage protection device available—see table below.

- Solid-State Construction for Reliability
- Overload Protection—Automatic
- **Automatic Short Circuit Protection**
- Regulation ±1% Each for Line and Load
 4 Models-5/6 V, 12/15 V, 24 V or 200 V

Stock	Mfr's	DC O	utput	EACH				
No.	Туре	Volts	Amp	1-	10- 24	25- Up		
983-3201 983-3202 983-3203 983-3204	DPS-1 DPS-2 DPS-3 DPS-4	5-6 12-15 24 200	3.0 1.5 1.0 .1	32.06 32.06 32.06 47.50	25.60 25.60 25.60 37.80	24.30 24.30 24.30 36.00		



OVP OVERVOLTAGE PROTECTION DEVICES



- For I-OEM and **DPS Series**
- **Protects in Event** of Regulation Failure
- **Also Protects Sensitive Loads** Such as IC's and MOS/FET's

TYPE OVP-2

Designed specifically for I-OEM and DPS series power supplies to provide overvoltage protection for loads if power supply regulation fails. Also protects voltage sensitive loads such as IC's or MOS/FET's. Device is easily mounted on I-OEM chassis or external to a DPS series chassis. When output voltage of power supply exceeds rated limit of installed OVP-2, a Zener diode clamps the output at its rated level. If overvoltage is caused by failure in power supply, the fuse connected in series with the positive load line blows. (Other fuse is bypassed and used as spare.) Zener diode also conducts during voltage transients to effectively clip (suppress) any transients. Trip Voltage Range: 6.8 volts, 3 amp or 5 amp fuse. Response Time: Protects load in 2 microseconds. Shutdown Time: Protects power supply and line in 10 milliseconds. Shpg. wt. 2 oz.

Stock	Mfr's	Afr's Fuse EACH							
No.	Type	Rating	VDC	1-9	10-24	25-Up			
983-0955 983-0956	OVP2-53 OVP2-55	3A 5A	6.8 6.8	11.85 11.85					

II OEM SERIES-ECONOMY REGULATED DC POWER SUPPLIES



Regulated DC power supplies for a variety of uses. Voltage potentiometer facilitates wide range of adjustment. Twelve models with voltages from 3.6 to 60 VDC AC input 115 V $\pm\,10\%$, single phase, 57 to 63 Hz. Line and load regulation each \pm 1%, low ripple output of 0.1% plus 10 mV rms. Automatic short circuit protection. Floating output permits positive or negative grounding. Transformer taps provided. Open chassis construction for use in original requipment manufacturer's (OEM) equipment.

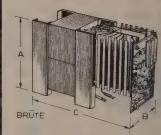
Type 30-OEM (30 W): 5x5x5". Shpg. wt. 5 lbs.

Type 60-OEM (60 W): 7x7x7". Shpg. wt. 7 lbs.

Type 120-OEM (120 W): 10x5x7". Shpg. wt. 12

Stock	Mfr's	Volt		EACH				
No.	Туре	Range V	1-9	10-24	25-Up			
983-5500	30-0EM-1	3.6-9	60.53	48.30	45.90			
983-5501	30-0EM-2	- 9-17	60.53	48.30	45.90			
983-5502	30-0EM-3	17-30	60.53	48.30	45.90			
983-5503	30-0EM-4	30-60	60.53	48.30	45.90			
983-6000	60-0EM-1	3.6-9	75.65	60.40	57.35			
983-6001	60-0EM-2	9-17	75.65	60.40	57.35			
983-6002	60-0EM-3	17-30	75.65	60.40	57.35			
983-6003	60-0EM-4	30-60	75.65	60.40	57.35			
983-7000	120-0EM-1	3.6-9	113.47	90.55	86.05			
983-7001	120-0EM-2	9-17	113.47	90.55	86.05			
983-7002	120-0EM-3	17-30	113.47	90.55	86.05			
983-7003	120-0EM-4	30-60	113.47	90.55	86.05			

BRUTE SERIES HIGH POWER REGULATED DC POWER SUPPLIES



- Circuit Virtually Eliminates RFI
- Efficiency is Greater Than 75%
- Remote **Ability**

Employs phase control principle. AC input 105/ 130 or 210/260 V. single phase, 47 to 63 Hz. Line regulation $\pm 0.1\%$ or 50 mV.; load regulation $\pm 0.1\%$ or 50 mV. Constant current or constant voltage with automatic crossover. Ripple 1% or 500 mV rms max. Output continuously adjustable from 5 to 50 V or 2 to 25 V (reconnectable). Overload protection is by adjustable current limiting. Optional OVP-1 overvoltage protection device. Brute 1 (300 W): 7¾ x7x11". Wt. 20 lbs. Brute II (600 W): 7¾ x7x12". Wt. 30 lbs. Brute III (1200 W): 11¼ x10x14". Wt. 50 lbs.

Stock	Mfr's	Output		EACH		
No.	Type	Amps	1-9	10-24	25-Up	
983-1101 983-1102 983-1103	Brute I Brute II Brute III	6/12 12/24 25/50	213.76 275.55 494.73	170.00 220.00 395.00	162.00 209.00 375.00	

FOREIGN TRAVEL ADAPTERS



A CONVERTER-ADAPTER

B STEP-DOWN TRANSFORMER



III OEM SERIES LOW VOLTAGE DC POWER **SUPPLIES**

Overload Protected

Overvoltage Protected

Ideal source DC for IC, OP-AMP, and MOS/FET or other voltage sensitive loads. Built-in overvoltage and overload protection. AC input 115/ 230 V \pm 10%, single phase, 57 to 63 Hz. Three models providing 5 to 28 V range at 60 W. line and load regulation each \pm 0.1%; ripple less than 0.01% or 1 mV. Has applications in items requiring low voltage DC from a single small dependable source. 5½ x5x6". Wt. 5 lbs.

Stock	Model No.	DC			EACH	
No.	MARK-	Output	Watts	1-9	10-24	25-Up
983-3480	111-0EM-5-5	5V. 5A	60	117.73	94.00	89.30
983-3490	III-0EM-12-5	12V. 5A	60	117.73	94.00	89.30
983-3510	HL-0FM-24-2 5	24V 2 5A	60	117 73	0.4 0.0	80 30

I OEM SERIES REGULATED DC POWER SUPPLIES

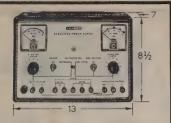


- Overload **Protected**
- **Short Circuit Protected**
- **Output Voltage** Adjustable 5%

popular ratings from 5 to 28 V, floating; current 5 A. AC input 115/230 V, 10%, single phase, 57 to 63 Hz. Output voltage adjustable ±5%. Open frame chassis provides easy mounting and low cost. Line and load regulation each $\pm 1\%$, ripple 0.1% plus 10 mV rms. Built-in foldback current limiting provides short circuit and overload protection. Optional OVP-2 overvoltage protection device available for all ranges. 5x6x51/2". Wt. 6 lbs.

Stock	Mfr's	DC		EACH	
No.	Type	Output	1-9	10-24	25-Up
983-0923	I-OEM-5-5	5V, 5A	78.90	63.00	59.85
983-0925	I-OEM-10-5	10V, 5A	78.90	63.00	59.85
983-0926	I-OEM-12-5	12V, 5A	78.90	63.00	59.85
983-0927	I-DEM-15-4	15V, 4A	78.90	63.00	59.85
983-0929	I-DEM-24-2.5	24V, 2.5A	78.90	63.00	59.85
983-0930	I-DEM-28-2	28V, 2.1A	78.90	63.00	59.85

AC AND DC POWER SUPPLIES, BATTERY ELIMINATORS



DUAL POWER SUPPLY

MODEL 1030-W. Dual independent, variable regulated DC outputs, plus dual unregulated filament voltages. Reg. B+: 0-400 VDC. Reg. Bias: 0 to -150 VDC. Filament V, 6.3 and 12.6 VAC at 3 A. 13x 8½x7". For 110-120 V, 50-60 Hz. AC. Shpg. wt. 21 lbs.
775X1031. Factory Assembled.....151.92



CHARGER/ **ELIMINATOR**

Front Panel Meters Show DC Volts, Current.

MODEL 1064-W. Delivers low-ripple DC; charges 6/12 V batteries. Heavy-duty silicon rectifiers L-C filter with iron core choke. Output: 0-8 V at 10 A continuous, 20 A intermittent; 0-16 V at 6 A continuous, 10 A interm. 81/2 x53/4 x71/2". 115 VAC. Shpg. wt. 16 lbs.

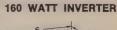
775X1065. Factory Assembled....105.16



CHARGER/ELIMINATOR

MODEL 1060-W. Electrolytically filtered, low-ripple DC for 6/12 V radios. Output: 0-8 V at 10 A cont., 20 A intermittent; 0-16 V at 6 A cont., 10 A interm. Front voltmeter, ammeter. Rugged steel case, 834x $10\frac{1}{2}x734$ ". For 105-125 V, 60 Hz AC. Shpg.

775X1061. Factory Assembled.....99.32





MODEL 1075. Ideal for cars, boats, trailers. Provides household current where. Change power delivered by VDC storage battery into 115 V rms AC.
Delivers 160 watts. Leads on front panel connect directly to storage battery. Size: 4x6x53/4". Shpg. wt. 6 lbs.

775-1075. Factory Assembled......55.06



SOLID-STATE 0-3 VDC POWER SUPPLY

- Ideal for Transistor Equipment
- Full Load Ripple. 0.005% Maximum

MODEL 1020-W. Features dual-range 0.6 volt and 0-30 front panel voltmeter with positive and negative binding posts. An ideal choice for modern transistorized as well as tube-type equipment, Power output: 0-12 volts at 150 mA; 12-24 volts at 200 mA; 24-30 volts at 300 mA. Has front panel fuse holder; power transformer for line isolation. Steel case, 5x4x5½". 117 VAC. Shpg. wt. 5 lbs. 775-1020. Factory Assembled.....

INVERTER/CHARGER



MODEL 1080. Delivers a solid 220 watts of power at 115 VAC when connected to the storage battery of your car, truck, boat, etc. Also operates as a battery charger using the 117 VAC supply from home or boat dock. Install it permanently for use as inverter and charger. Battery charger is rated 5 amps, automatically tapers down to prevent overcharging. Size, 4x6x5\(^4\)". 7 lbs. 775-1080. Factory Assembled...

REGULATED DC POWER SUPPLY



Regulated Low Rippie

MODEL 1032-W. Regulated against line and load variations. Provides the voltages and currents most commonly needed in the service shop and laboratory. Provides 0-30 volts continuous output with loads from 0 to 500 mA. Regulation, 0.2 volts change from 0 to maximum load and 105-135 volt line. Ripple, less than 2.5 mV p-p. Voltammeter. Fused. 4% x3¾ x81/8". 105-135 VAC. 5 lbs. 775-1033. Factory Assembled......74.77

SOLID-STATE DC **POWER SUPPLIES**

MODEL WP-700A. Constant-voltage DC power supply that is ideally suited for circuit design, servicing, industrial and educational uses. Deliver continuously adjustable 0-20 volts at 0 to 200 mA. Negative feedback regulator for low ripple output of less than 500 µV rms. Line regulation: less than 30 mV change in output voltage for line variation of 105-135 VAC. Load regulation: less than 50 mV change for 200 mA load change. Overload indicator. Compact case, $4x6\frac{1}{2}x3''.$ For 115 VAC. 3 lbs. 901-5700. 1-4..... Each 53.44 5-Up..... Each 48.00

MODEL WP-702A. Similar to Model WP-700A, but dual unit supply with each section isolated. Features separate controls, output terminals, meters. 6x12x3". 5 lbs

901-5702. 1-4..... Each 110.22 5-Up..... Each 99.00 MODEL WP703A. As WP-700A, above, but output of 0-20 volts at 500 mA, 51/4 x81/4 x31/4 ". Shpg. wt. 6 lbs. 5-Up..... Each 60.00 901-5703. 1-4..... Each 66.80

MODEL WP-704A. As vvi-1004, 0-40 volts at 250 mA. 5¼ x8¼ x3¼". Shpg. wt. 6 lbs. Fach 66.80 5-Up..... Each 60.00





A DC POWER SUPPLY

For Electronic Test Equipment Where Power Requirements are Minimal

B HEAVY-DUTY DC SUPPLY

BATTERY CHARGER/ELIMINATOR



- Three Outputs Provide 0-30 VDC
- Low 0.005% Maximum Ripple
- Front-Panel Voltmeter and Ammeter

MODEL 1025-W. Solid-state 0-30 VDC power supply. Output current: 150 mA (0-12 volts); 200 mA (12-14 volts); 300 mA (24-30 volts; all with low 0.005% maximum ripple. Front panel voltmeter, ammeter and pilot lamp. Fused. Size, 3% x 8 x 434". For 110-130 volts, 60 Hz AC. Shpg. wt. 5 lbs. wt. 5 lbs. 775-1026. Factory Assembled......74.77







DC-TO-AC POWER INVERTERS **SOLID-STATE UNITS WITH 12-V INPUTS**

Ideal for powering 117 VAC appliances such as electric razors, lighting, small power tools, tape recorders, radios, television receivers, phonographs, test equipment, ambulance equipment, video tape, etc. from car or portable battery. Invaluable for outdoorsmen, vacationers, farmers, construction workers, trailer owners. Output voltage varies directly with input voltage and is inversely proportional to load. Available in wattage ratings from 350 to 1000 watts. All solidstate for extra reliability. Heavy-duty units are intended for use with large appliances or combinations of small tools and appliances; lighter units are suitable for small radios, shavers, phonographs. All inverters are for 12 volt DC input only. *60 Hz, ±1 Hz, 11-14 VDC input.

Stock No.	Mfr's. Type	Fig.		Max. Watts Cont.	Output	No	Battery Charger	Frequency Control*	Size, In.	Wt., Lbs.	EA 1-9	CH 10-Up
575-1065	PV-350	В	12	350	385	41/2	No	No	3½x6½x9	10	94.69	84.48
575-1070	PV-500B	C	12	500	550	4	10 amps	No	5x9½x9	19	136.77	116.25
575-1000	PV-250FC	В	12	250	275	3½	No	Yes	3½x6½x9	13	134.46	114.29
575-1010	PV-500FC	C	12	500	550	41/2	No	Yes	5x9½x9	19	246.33	209.38
575-1075	PV-1000FC	Α	12	1000	1100	12	No	Yes	5x9½x17	45	358.22	304.49

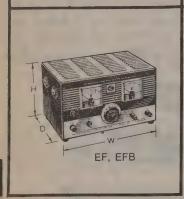
NOTE: do not use with refrigerators, capacitor-start or split phase motors, inductive reactive or capacitive loads.

Power Supplies and High-Voltage Packs

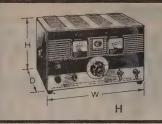
PROVIDE FILTERED DC VOLTAGE FOR INDUSTRIAL APPLICATIONS

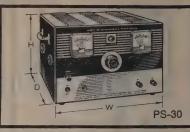












GENERAL-PURPOSE POWER SUPPLIES

- Smooth Action Controls and DC Voltage and Current Meters Permit Adjustment to Exacting Requirements
- Model D-612T. For CB transceivers, battery charging, solenoids, etc., requiring up to 16 VDC. Low ripple. Maximum output for the price. Voltage and current output meters. Input: 117 V, 60 Hz.
- Model H. Heavy-duty, dual range unit. Replaces storage batteries in labs, thermoelectric power sources and other high current, low voltage applications. Voltage and current output meters. Input: 117 V, 50-60 Hz AC.
- Patented Conduction Cooling
- Special Filters Improve Regulation
- All Output Ratings Conservative

Model EC-2. Low cost unit for auto, tape, disk and transistor radio servicing, research and development. Continuously variable output; low ripple. Combined voltmeter/ammeter. 117 V, 60 Hz.

Model PS-30. Delivers 30 amps continuously. Heavy-duty, adjustable 12-volt unit services auto, aircraft and marine radios. Many industrial and educational uses. Eight-position tap switch voltage output selection. Input: 117 V, 50-60 Hz.

*Continuously variable unless otherwise noted, †Voltage change for each amp output change; §No-load to full-load unless noted.

Stock	Mfr's			DC Imped.,	Size, Inches	Wt.	EACH				
No.	Type	Volts*	Amps	V/A† .	Ripple	Meters	Ohms §	WxDxH	Lbs.	1-4	5-Up
780X1000	D-612T	0-16 0-8		0.44 (3-10 A) 0.3 (3-10 A)		0-20 V; 0-10 A	0.44 (3-10 A) 0.3 (3-10 A)	12x8½x7	22	124.63	99.50
780X4000	Н			0.23 (3-10 A) 0.15 (3-20 A)		0-20 V; 0-30 A	0.23 (3-10 A) 0.15 (3-20 A)	12x8½x7	30	162.82	130.00
780-2100 780Z6200	EC-2 PS-30	0-16 12 adj.		1.8 0.12 (6-30 A)		0-20 V/10A 0-20 V; 0-50 A	1.8 0.27	4%x6½x10¾ 14¼x14¼x9¼	11 68	93.32 288.07	

INDUSTRIAL POWER SUPPLIES

DC voltage output is continuously variable. Avalanche characteristics on rectifiers. Meters have $\pm 2\%$ accuracy.

Model NFB. Heavy-duty, 0-32 V. Low ripple. Variable autoformer for smooth control. Silicon rectifiers. Input: 117 V, 50-60 Hz.

Model GFL. Low cost, semi-regulated, low ripple, 0-125 V. For design and testing DC appliances, phone circuits, relays, etc. Silicon rectifiers; overload protection. Input: 117 V, 50-60 Hz.

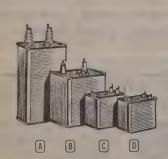
Model EF. Variable output, 0-28 or 0-14 V at 5 amps continuous, 10 amps intermittent. Selenium rectifiers. Input: 117 V, 60 Hz

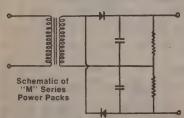
Model EFB. Very low ripple version for transistor work; has chokes and capacitors in ripple filter. Federal stock number 6130-957-1450. Input: 117 V, 50-60 Hz AC.

†Voltage change for each amp of output change % applies for either line or load. §No-load to full load unless otherwise specified.

Stock	Mfr's	Output	Regulation§	Max.					EA	
No.	Type	Volts Amps	V/A†	Ripple	Meters	Ohms§	WxDxH	Lbs.	1-4	5-Up
780X2200	EF	0-28 0-6 0-14 0-6	1.9 (1-5 A) 0.6 (1-5 A)	1.0%	0-50 V; 0-6 A	0.9 (1-5 A) 1 0.6 (1-5 A)	12x8½x7	25	172.22	137.50
780U2300	EFB	0-32 0-4 0-16 0-8	1.25 1.0	0.1% 0.1%	0-40/20 V; 0-10 A	1.25	12x8½x7	36	241.11	192.50
780Z3000 780Z5000		0-125 0-5 0-32 0-15	1.5 0.4	0.5% 0.75%	0-150 V; 0-5 A 0-50 V; 0-25 A		14%x14%x9% 14%x14%x9%		468.69 465.93	

"M" SERIES HIGH-VOLTAGE PACKS





Compact, hermetically sealed, oil-filled units. Selenium rectifiers avoid failure—design life 40,000 hours at +35°C, 25,000 hours at +65°C. No warm-up time. Mount in any position. Use with primary voltage input control to adjust output from zero to full rated voltage. Input: 0-118 VAC, 50-500 Hz. Output: 0-1.5, 0-5 or 0-10 mA DC to rated voltage. Ripple: 1% rms or 2.75% peak to peak. Ambient rating —55° to +85°C (output at +85°C limited to 4mA) except Mfr's Type HV300-502M,

50°C maximum. Maximum altitude: 10,000 feet operating, 50,000 feet non-operating. Vibration: 10-55 cycles with 0.06" excursion for 2 hours in each plane except ‡ for applications not subject to excessive shock. Oil-filled containers primed and lacquered per MIL-L-7178. Terminals are steatite, solder-seal type with solder lugs; except types rated 30 kilovolts DC and above have corona spheres with 11/64" dia. holes to accept banana plug. All models have footed mounting brackets.

- Mfr's Type DC Output **EACH** Stock No. Case Size H x W x D Fig. mA 5-Up 884-0203 884-0206 884X0209 884-0222 HV20-502M HV25-103M HV50-103M HV100-152M 3%x2¼x3¾ 3%x2¼x3¾ 5%x3¾x4¾6 4½x3¾x3¾6 111.63 113.02 145.22 123.22 21/2 31/4 88.89 90.01 2.5 10 5 1.5 11 43/4 115.65 98.14 5 1.5 1.5 884X0224 HV100-502M 10 15 20 81/8 53/4 81/8 155.52 164.02 167.03 123.86 130.63 133.02 В 5 1/8 x 3 1/4 x 4 9/16 884-0220 884X0239 HV150-152M HV200-152M 51/2x31/4x31/16 51/2x31/4x31/16 BB 884X0242 884U0260 HV200-502M HV300-502M‡ 20
- DC Outputs from 2 to 50 Kilovolts
- Pass 50-Hour
 MIL-Q-151 Salt
 Spray Test
- Grain-Oriented Iron-Core Transformers
- Film-Type
 Long-Life Filter
 Capacitors

CVDC POWER SUPPLIES

- Fixed Output for Pulse, Variable, Intermittent, Fixed Loads
- DC Voltage Regulation within ±1% for ±15% input Voltage Variation
- Constant Voltage Transformer Provides Automatic Current Limiting

Excellent for controlling line voltage fluctuations, particularly effective when employed with fixed loads. Large filter capacitances also provide fast response for rapidly changing loads. "Brute force" supplies offer DC voltage regulation to ±1% for ±15% input voltage variation. Constant voltage transformer provides automatic current limiting in event of load faults; short-circuit protection prevents damage from overloads. Utilizes full rating of rectifiers—wave shape minimizes filtering needed. Normal ripple, 1% rms, except *½%. Negative or positive DC polarity. Typical efficiency, 75%. Electrical circuits insulated from ground for operation at either polarity. For 100-130 VAC, 60 Hz.

Stock	Mfr's	Outp	ut Ra	tings		Size, I	n.	Wt.		EACH	
No.	Type	V	A	W	Α	В	C	Lbs.	1-4	5-9	10-Up
921X7750	282124-1	12	10	120	51/4	21/4	71/4	31		161.00	
921-7742 921Z7401	281845-2 282125-1	12	15	180	51/4	21/4	71/4	45	196.64		140.50
921X7200	281024-1	18 24	10	180	51/4	21/4	7½ 9¾	45 30	197.48	181.00 165.00	151.25 148.50
921Z7850	282126-1	24	10	240	51/4	21/4	83/4	48	210.84	181.00	163.00
921-7744	281203-2	24	15	360	7	4	71/4	64	209.59	179.00	161.00
921-7752	282127-1	24	25	600	83/4	53/4	9	72	268.87	230.00	207.00
921F7875	282128-1	- 28	15	420	7:	4	71/4	55		191.00	
921X7250 921U7650	281048 281561-2	.48 48	10	192 480	51/4 51/4	21/4 21/4	93/4 93/4	32 48		170.00 207.00	153.00 186.25
921F7950	282129-1	48	20	960	83/4	53/4	93/4	95	317.30	272.00	244.75
921-7746	281150-1	150	2	300	51/4	21/4	93/4	48			150.25
921F7450	281250*	250	1	250	51/4	21/4	93/4	45	189.13	162.00	145.75



- Regulation 0.05% Line or Load
- Ripple 0.01% rms
- Remote Sensing Capability

Constant voltage supplies offer choice of two models. Automatic short circuit protection with automatic return. May be used with positive or negative polarity. Remote sensing provision to eliminate effects of lead resistance on DC regulation. For bench or rack use. Convection cooled. Completely serviceable. Shpg. wt. 7 lbs.

SPECIFICATIONS

Regulation		±0.1%
	10 m	V or .01%
ent	**********	.0.03%/°C
re	0°C	to +55°C
	\dots 50 μ sec,	1/2 L to FL
	ient	Regulation

Stock Mfr's		Outpu	ıt	EACH			
No.	Туре	Volts	Α	1-9	10-49	50-Up	
921-4850 921-4853	83-05-260 83-24-225	4.8- 5.5 23-25	6 2.5	93.85 93.85	71.50 71.50	67.50 67.50	

MODULAR POWER SUPPLIES

Regulating Action: Holds output voltage to ±1% or less for input variations as great as ±15% of nominal input voltage. Input 100-300 VAC, 60 Hz. Response: 25 milliseconds. Frequency: variation linear over ±5% change in frequency from 60 cycles, approximately 1.4% voltage increase for 1% frequency increase. Operating Temperature: 0° to 50°C. Output voltage will change 1% for

40° change in ambient temp. Ripple: Not over 1% rms. Isolation: CV transformer isolates AC source and DC load. Short Circuit Protection: Automatic current limiting limits current to 250% of rated value and protects power supply and equipment. Polarity: Output terminals isolated from ground, allowing positive or negative output to be grounded.

Stock	Mfr's	D	C Outpu		Vo	lation Its	Style	Max. Ripple	Shpg.		EACH	
No.	Туре	V	Α	-W	½L-FL	1/4 L-FL		rms	Wt.	1-9	10-49	50-Up
921-4704 921-4708 921-4716 921-4720	28-06-315 28-12-310 28-28-243 28-05-325	6.3 12 28 5.2	15 10 4.3 25	95 120 120 130	0.5 0.6 1.2 0.5	0.8 1.0 2.0 0.8	A A B	.4 .4 .3 .4	14 14 14 19	133.60 133.60 133.60 160.32	114.00 114.00 114.00 135.00	103.00 103.00 103.00 122.00
921-4722 921-4726 921-4732	28-06-325 28-12-315 28-24-280	6.3 12 24	25 15 8	155 180 192	0.5 0.6 0.7	0.8 1.0 1.2	B B	.4 .4 .3	19 19 19	160.32 160.32 160.32	135.00 135.00 135.00	122.00 122.00 122.00

MINIATURE DC POWER SUPPLY TW/TWD SERIES



6.90

SOLAS

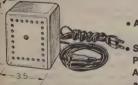
Miniature power supplies of rugged modular construction that provide well-regulated, reliable DC power with no deration over all specified conditions. Models available in most commonly used output voltage and current rating to provide power for operational amplifier, decimal displays, digital logic, signal conditioners and instrumentation. TW series has single output that is adjustable ±2% by using an external trim resistor, and can be used individually or connected in pairs where positive and negative voltages are required. TWD series offers a dual supply in a single assembly. Output can be shorted without causing damage to the power supply; however, prolonged operation with the supply overloaded or shorted is not recommended. Threaded inserts secure units to mounting surface. AC input 105-125 V, single phase, 50-400 Hz, input isolation 50 ohms. Output voltage ±2%. Output Resis. 0.2 ohms at 10 kHz. Oper. Temp. —25° to +71°C, Stor. Temp. —25° to +85°C.

CHASSIS B

Stock	Mfr's		Out	put	Regul	ation	Size	1.	EACH	
No.	Туре	Description	Volts	mA	Line %	Load %	Inches WxHxD	1-9	10-24	25-Up
983-0900 983-0901 983-0902		Single Outpu Logic Supplies	5	250 500 1000	±0.05 ±0.05 ±0.05	±0.1 ±0.1 ±0.1	2x3x1 2½x3½x¾ 2½x3½x1¼	48.83 55.11 81.41	41.00 47.30 70.00	36.50 43.25 63.50
983-0906	TW15-100 TW18-65 TW24-50	Single Output General Purpose Supplies	10 12 15 18 24 28	120 120 100 65 50 40	±0.05 ±0.05 ±0.05 ±0.05 ±0.05 ±0.05	±0.05 ±0.05 ±0.05 ±0.05 ±0.05 ±0.05	13/4x21/4x1	31.31 31.31 31.31 31.31 31.31 31.31	26.80 26.80 26.80 26.80 26.80 26.80	25.10 25.10 25.10 25.10 25.10 25.10
983-0916 983-0917 983-0918	TWD12-240 TWD15-25 TWD15-65 TWD15-100 TWD15-200	Output OP Amp	12 15 15 15 15	240 25 65 100 200	0.02 0.2 0.04 0.03 0.02	0.05 0.2 0.02 0.02 0.05	2½x3½x1¼ 2½x3½x½s 2½x3½x½s 2½x3½x¾ 2½x3½x¾	91.43 28.80 46.40 60.12 91.43	78.10 24.66 39.80 51.50 78.20	73.00 23.00 37.00 48.00 73.00

ELIMINATOR 12V DC POWER SUPPLY

CHASSIS A



. All Silicon

Specially Protected **Against Shorts** and Overloads

YPE BE12. Eliminates the need for 12-14 volt batteries of power DC devices. May be used for servicing all-ansistor 12-14 volt equipment and hybrid or all-vacuum the equipment. Useful for operating auto radios, stereo ape cartridge and cassette players. Specially designed for protection against inadvertent overloads and dead hort circuits. 105-125 volts, single phase, 60 Hz AC. recision regulated and filtered. DC output: 12-14 volts to 1.5 amps. All-silicon transistors for maximum dependility. Special corrosion resistant case. Includes sturdy, .L. listed two-wire cord and plug. Output leads com-

A 072	A O . I IU.							
Stock .	Mfr's	Output	EACH					
No.	Type	Voits	1-9	10-24	25-Up			
83-1000	BE12	12-14	33.20	26.50	23.85			



SOLID STATE **POWER INVERTER**

MODEL 12-115. Converts 12 VDC to 115 VAC, 60 Hz. 200 W continuous operation with peak power up to 240 W. For car, truck, boat, camper—operates radios, tools, etc. Built-in overload protection. 4 x 7½ x 5½". .. Each 59.95



POWER CONVERTER

MODEL 612. Converts 6 volt negative ground or 12 volt positive ground electrical systems to 12 volt negative ground operation. Provides full 3 amp continuous power and 6 amp surge. The inexpensive solution for installing car radios. continuous power and o amp surge. The inexpensive solu-tion for installing car radios, stereo and cassette tape play-ers, or CB equipment, in ve-hicles with 6 volt negative ground or 12 volt positive ground systems. 2% x 3 x 5". 615-0020.......Each 24.95

SOLID STATE POWER SUPPLY



MODEL 102. Converts 115 VAC MODEL 102. Converts 115 VAC to 12VDC. 2½ A continuous, 4 A surge. Lets you use car 8-track or cassette player in home or office. Even powers a household burglar alarm. Instead of fuse, incorporates a circuit-breaker component that automatically shuts off 12 V output in case of accidental overload. overload 615-0040.....



REGULATED POWER SUPPLY

MODEL 104R. Converts 115 VAC to 13.6 VDC ±200 millivolts. 4 amp power supply regulated 6 amp surge. Dual volts. 4 amp power supply regulated. 6 amp surge. Dual overload protection. Regulated. Delivers maximum power out of your mobile CB rig. Also can be used to trickle-charge 12 volts car batteries. Special U.L. listed features: neon indicator light, on/off switch. An excellent performer. 3½ x 5½ x 6½".

615-0030........Each 47.95 ... Each 47.95

Contact Your Nearest Allied Electronics Office for Fast Service

Batteries, Battery Chargers, Flashlights, Clips

RADIO RAI ADI SHA RADIO SHACK SHACK

ALLIED'S OWN "NEW FORMULA" BATTERIES

- Subjected to Rigid Quality Control Tests
 - Guaranteed Factory Fresh Buy in the Box for Bigger Savings

Why pay more for zinc-carbon batteries when Allied's own premium-quality "New Formula" power cells give you superior performance at substantial savings? Factory sealed for protection in handling against corrosive leakage. Available in sizes to fit all popular flashlights and other battery-powered appliances. "Buy 'em by the box" and save even more.

Stock	Tyne	Size		Replaces		EACH	Lots of	Per
No.		Size	Eveready	Burgess	RCA	EAGR	10	Box
910-5114 910-5129 910-5116 910-5112	23B466 23B468 23B467 23B464	1.5V "D" 1.5V "AA" 1.5V "C" 9V Rect.	950 915 935 216	2 Z 1 2U6	V5036 VS034A VS035A VS323	.21 .15 .21 .49	1.89 1.35 1.89 4.41	Box 24/3.83 Box 72/8.64 Box 24/3.83 Box 24/9.64

bracke inacl LSVBATT Miracle Des LSVBATT

NOVA CELL "TRIPLE LIFE" BATTERIES

- Triple the Life of Ordinary Batteries
- Polyethylene Seal Prevents Leakage
- Full Three-Year Shelf Life

A single Allied Nova Cell battery lasts as long as three regular zinc-carbon batteries. Made with a miracle polyethylene seal that prevents leakage — ends "battery mess." Specially processed electrolyte delivers triple the life of ordinary batteries. Available in three popular sizes, in packages of two or four batteries as shown below. Try them once —you'll never use regular batteries again!

you'll hever use regular batteries again.										
Size	Volts	Pack of 2	Pack of 4							
"C" Cell	1½ 1½	1.00 1.00	4'46							

ENERCELL SUPER-VALUE LONG-LIFE ALKALINE BATTERIES

Average Life Curve In Minutes

Type No.

23-451 23-452

Siz

..C.,

4 Ω Continuous Discharge 0.8

Type No.

23-550 23-551

Average Life Curve in Minutes

Average Life Curves in Minutes

Stock No

910-5105 910-5106 910-5107

Stock

910-5171 910-5172

01.4

150mA 30 minutes a day

- For High-Drain Applications Provide Extended Service Outlasts Regular Batteries 10 to 1

Give you extra service and long life. Especially designed for high drain service applications—outperform, outlast standard operating zinc-carbon flashlight batteries by up to 1000%. Alkaline cells cost less, too. Compare by dividing the Initial cost by the many extra hours of service provided. Long-life, high power alkaline batteries mean better service for virtually to the caracter or betteries.

1600	tually	anything the	at operates	on batteries.	10 oz. pack.
	1/-14-		PRICE		
8	Volts	Burgess	Eveready	Mallory	FRICE
,	1½ 1½ 1½	AL-2 AL-1 AL-9	E95 E93 E91	MN1300 MN1400 MN1500	Pkg. 2/1.79 Pkg. 2/1.49 Pkg. 4/2.09

C -1-1/4 -Rect. 0 17/32 (

1/2

AA

1-15/16

1-15/16

SELF-REGULATING DELUXE CHARGER



- 1000 Recharges
- Burnout Safe

BATTERY CHARGER BC-16 Pays For Itself in Batteries Saved

..... Each 14.00 853-3700

9-VOLT BATTERY CLIPS



battery holder connectors. Long life and increased resistance to battery acid and other physical extremes. 910-5205. Type 270-325...Set of 5, 99c

RECHARGEABLE ALKALINE **BATTERIES**

SA15AA. SA14C. MODELS SA15AA, SA14C, SA13D BATTERIES. Designed for high-drain service applications, these batteries outperform, outlast standard batteries. Excel in heavy duty applications. All are directly interchangeable with carbon-zinc and alkaline primary AA, C and D cells. Excellent charge retention up to 50 recharges. 1½ volts. Package of 2.

Stock	Mfr's	Sivo	Wt.	PK	G./2
No.	Type	2178	Oz.	1-9	10-Up
853-3703	SA15AA	AA	1	2.93	
853-3702	SA14C	C	21/2	4.55	3.64
853-3701	SA13D	L)	5	5.05	4.04

FLASHLIGHTS



INDUSTRIAL "MAGNET" FLASHLIGHT



INDUSTRIAL TWO-CELL FLASHLIGHT



No. 368

INDUSTRIAL FLASHLIGHT WITH SPARE BULB

OFFER SUPERIOR PERFORMANCE, LONG LIFE AND LOW PRICE

Stock

737-0780 737-0790 737-0800 737-0820 737-0830

737-0840 737-0950 737-0750 737-0040 737-0470

737-0480 737-0500

737-0510

Stock No.

737-0760 737-0770

737-0810 737-0910

737-0030 737-0400 737-0420 737-0720

737-0970 737-0980 737-0990 737-0020 737-0430

737-0430 737-0490 737-0580 737-0590 737-0600

737-0610 737-0620 737-0630 737-0640 737-0660

737-0670 737-0690 737-0700

737-0740

737-2006 737-2007 737-2008

No.

1611

1605 910

1600

NEDA No.

700

706

701

226

208 215 210

ZINC CARBON

918 926

Type

2MN6

2N6 2U6

930

C6X L6

M6 NE P6 Y6

Mfr's Type

2F 2FH

4F 532

C5 2FH/2FBP F4PI Z4

4156 5156SC

K15 M30

1120

U30 UX45

V45

V60 XX15

XX45 Y10 Y15

F4BF TW1 TW2

9.0

9.0 1.5 9.0 9.0

Volt-

age

22½ 22½ 45 45 15

22½ 45 15 22½ 30

45 67½ 67½ 90 22½

67½ 15 22½ 45

Pass Rigid Quality Control Tests
 Batteries for Every Application
 Buy by the Box for Bigger Savings
 All Batteries Guaranteed Factory Fresh

• All Batteries Guaranteed Factory Fresh

Batteries to meet every application that your needs require: ... zinc carbon batteries, lantern batteries, industrial batteries, rechargeable nickel-cadmium batteries, mercury batteries and alkaline batteries. Zinc Carbon: Long-life, most popular for portable power, in most standard sizes. Specially sealed to prevent leakage. Sturdy construction. Designed for dependable use in industrial, transistor, electronic and many other applications. Lantern: Sturdy construction. Maximum dependability for any application and emergency. Industrial: Heavy-duty for maximum demands. Rechargeable Nickel-Cadmium: Specially designed to have long-life between charges . . . and to charge up to maximum operating voltage quickly. Mercury and Alkaline: Designed for high-drain service applications, these batteries outperform, outlast standard batteries.

ZINC-CARBON BATTERIES FOR TRANSISTOR CIRCUITS

In.

1x³%₄x1% dia 1%x1%x2% 1x³%₆x1% 1x³%₆x1% 1%x¹%₃₂ dia. 1¹⁵%₁₈x⁸%₄ dia.

225/64X121/64 dia.

131/32X35/64 dia. 23/8X121/64 dia. 25/16X11/32X61/16 131/32X47/64 dia.

1¹³/₁₆x1¹³/₁₆x2⁷/₁₆ 1¹¹/₆₄x⁷/₁₆ dia. 1¹⁵/₁₆x1 dia.

3/5x3/5x1-1/10 ZINC CARBON "A" BATTERIES FOR ELECTRONIC USE

Size

219/32X13/8X11/4 25/8X111/32X41/8

25/8 x 25/8 x 43/32 215/32 x 13/16 x 223/32

2⁷/₃₂x1¹⁵/₁₆x3¹/₃₂ 2²¹/₃₂x1³/₈x4¹/₃₂ 2²¹/₃₂x2²¹/₃₂x4¹/₈

13/16X13/16X27/32 ZINC CARBON "B" BATTERIES FOR ELECTRONIC USE

317/32X21/8X229/32 47/64X23/8X255/64

4/18x25/16x5/8 4/18x217/32x55/16 1/4x76x117/32

1 /4 X /8 X Z /32 3 % 16 X 1 3 4 X 5 ½ 1 X 3 9 6 4 X 1 7 18 1 X 3 9 6 4 X 2 1 7 32 1 X 3 9 6 4 X 2 1 7 32

1x"/64x2"/32 13/32x18/32x317/32 17/32x331/32x331/32 23/xx111/32x343/64 323/32x18/32x311/18 111/32x15/32x37/8

23/4X111/32X343/84 19/32X18/32X123/84 18/32X19/32X131/32

31/32x17/8x418/32

4x1/6x21/4 25/6x25/6x41/6 LANTERN BATTERIES

25/8×25/8×4 53/8×27/8×415/18

Quantity

Each

Pk/2 Pk/2

Pk/2 Pk/4

Each Each

Each

Each Each Each

Standard

Quantity

Each

Each Each

Each Each Each

Each Each Each

Each Each

Each

Each Each Each

Each

Each Each

Each

Each Each

Each Each Each Each

Each Each Each

"C" BATTERIES FOR ELECTRONIC USE





STANDARD QUANTITY

10-24

2.50 .86 .50

30

4.00

1.95

STANDARD QUANTITY

2.10

2.18

2.20 3.00 1.88

10.60

3.38

5.00 1.50

1.95

2.89 5.50 4.25

5.10 5.14

3.85

1.70 2.00 5.50

10-24 25-Up

.63 .86

36

5.00

2.63

1-9

2.63 2.22 2.75 3.50

2.88 3.75 2.35

14.50

4.22

6.63

2.50

3.63 7.15 5.30

6.63

4.95 2.12 2.50 6.88

2.25 4.80

.72 1.77 .61 .34 .45

.45

.20 2.84 .70

1.36

.87

1.44 1.26 1.38 1.88

1.55 2.13 1.33

2.65

2.12 6.53 4.61 7.45 2.01

2.39 3.60 1.03

1.42 1.30

1.98 3.85 2.91 3.57 3.64

2.70 1.20 1.42 3.76

2.63 1.33

RECHARGEABLE NICKEL-CADMIUM BATTERIES

(*10-Hour Discharge Rate in mA)
BUTTON CELLS

Mfr's	V	Size	Wt.		Replaces	EACH		
Туре		(Inches)	(0z.)		Size	1- 9	10- 24	25- Up
CD1	1.25	29/64Dx7/32	2	2	N22	3.25	2.60	1.85
CD2	1.25	39/64 Dx15/64	2	5	N24	2.75	2.00	1.42
CD4		63/64Dx11/32	2		N32	2.88	2.30	1.53
CD4L	1.25	63/64Dx3/8	2	22	N32T	3.25	2.58	1.72
	CD1 CD2	Type 1.25 CD1 1.25 CD2 1.25 CD4 1.25	Type (Inches) CD1 1.25 2%4Dx/32 CD2 1.25 3%4Dx/34 CD4 1.25 9%4Dx/1/32	Type Cot 1.25 23%40DX/32 2 2 2 2 2 2 2 2 2	Type (Inches) (Oz.) CD1 1.25 2*%4Dx1*%4 2 5 CD4 1.25 0*%4Dx1*/54 2 5 CD4 1.25 0*%4Dx1*/54 2 22	Number V Size Vt. Neplaces Vt. Coz. Neplaces Coz. Co	Type V Size Vt. Replaces Size 1-	Type (Inches) (IOz.) Size 1- 10- 9 24 CD1 1.25 234.0Dx154 2 2 N24 2.75 2.00 CD4 1.25 634.0Dx154 2 2 N32 2.88 2.30

CYLINDRICAL CELLS

					نستنظ				
737-0130	CD6 (AA)	1.25	8/16Dx11/64	2	45	N	4.50	3.35	2.24
737-0140	CD6L (AA)	1.25	%18Dx2%32	2	45	N	4.83	3.58	2.50
737-0200	CD10 (D)	1.25	119/64 Dx227/64	2	400	N	14.33	11.46	8.13
737-0210	CD10L (D)	1.25	119/64Dx249/64	2	400	N	14.45	11.56	8.20
737-0230	CD12 (short C)	1.25	%Dx133/64	2	120	N S	5.70	4.55	3.03
737-0250	CD14 (C)	1.25	11/64Dx61/64	4	190		8.75	6.70	4.68

NICKEL-CADMIUM BATTERIES

737-0270 737-0272 737-0280	CD22 CD23 CD24	6.1 6.1 9.7	1½16Dx13½2 15½4Dx15564 1½6Dx22¾2	12 12 12	22 45 15	Y5201 Y5488	15.25 23.10 20.50	13.61 20.37 17.97	10.65 16.08 14.35
737-0290 737-0330 737-0340	CD25 CD28 CD29	9.7 12.2 12.2	11/16Dx37/32 11/16Dx319/32 151/64Dx37/64	12 12 20	22 22 45	Y5386 Y5511	20.65 26.25 42.65	18.13 23.25 37.50	14.45 18.35 29.85

MERCURY BATTERIES

Allied will supply name brand-whatever in stock. tWith span terminals *Capacity in milliampere-hours

	TAAITH	snap termi	nais. ^	Capaci	ty in milliampere-h	ours.		
					Dia. x Ht.		EACH	
Stočk No.	Mfr's Types	Mfr's Types	Volts	Cap'y mAH*	H.W.D.	1- 9	10- 24	25- Up
853-0001 853-0002 853-0003 853-0004 853-0005	RM1 RM1R RM1RT2 RM3R RM4R	HG1 HG1R HG1RT2 HG3R HG4R	1.40 1.35 1.35 1.35 1.35	1000 1000 1000 2200 3400	%x ² / ₃₂ %x ² / ₃₂ %x ² / ₃₂ %x ² / ₃₂ 1x ² / ₃₂ 1½x ² / ₃₂	1.50 1.89 2.39 2.95 3.77	1.20 1.51 1.91 2.36 3.02	.80 1.01 1.27 1.50 2.01
853-0006 853-0007 853-0008 853-0010	RM4RT RM12 RM12R RM12RT2	HG4RT HG12 HG12R HG12RT2	1.35 1.40 1.35 1.35	3400 3600 3600 3600	1½5x²⅓2 5x16⅓4 5x2 5x16⅙4	4.03 2.65 2.95 3.45	3.22 2.12 2.36 2.76	2.14 1.41 1.67 1.83
853-0012 853-0013 853-0014 853-0015 853-0017	RM42R RM42RT2 RM312 RM400 RM401	HG42R HG42RT2 HG312 HG400 HG401	1.35 1.35 1.40 1.40 1.40	14000 14000 36 75 800	1½x2¾ 1½x2½ ½x2½ ½x3½4 ²¾x½4 ²¾x½4 ²¾x1½	8.12 8.83 .53 1.13 1.50	6.50 7.06 .42 .90 1.20	4.32 4.69 .33 .69 .86
853-0200 853-0020 853-0023	RM413 RM502R RM601R	HG502H HG601R	28 1.35 1.35	160 2400 1800	1x ¹⁹ / ₃₂ x2½ ½"dia. x 1 ³¹ / ₃₂ ⁵ / ₈ x ¹⁵ / ₃₂	7.50 2.65 2.65	6.00 2.12 2.12	3.99 1.64 1.64
853-0024 853-0025 853-0027 853-0030 853-0201	RM625 RM625R RM640 RM675 TR112R	HG625 HG625R HG640 HG675	1.40 1.35 1.40 1.40 2.8	350 250 500 160 350	%x¼ %x¼ %x¼, %x¼, 28/64X13/64 21/52X13/64	1.42 1.65 1.37 .75 3.75	1.14 1.32 1.10 .60 3.00	.76 1.05 .73 .40
853-0032 853-0034 853-0035 853-0036	TR114RT2 TR115R TR126 TR132	H114RT2 H115R H126 H132	5.40 6.75 8.40 2.80	250 250 600 1000	21/32X11/16 21/32X15/16 34X2 21/32X15/16	5.90 5.60 3.75 2.95	4.32 4.48 3.00 2.36	2.87 2.98 1.99 1.56
853-0037 853-0038 853-0039 853-0040 853-0041	TR132R TR133 TR133R TR134R TR135R	H132N H133 H133R H134R H135R	2.70 4.20 4.05 5.40 6.75	1000 1000 1000 1000 1000	27/32X15/18 21/32X2 21/32X2 21/32X2 21/32X25/64 21/32X31/4	3.30 3.75 4.20 5.10 6.03	2.64 3.00 3.36 4.08 4.82	1.75 1.99 2.38 2.71 3.20
853-0043 853-0044 853-0045 853-0047 853-0048	TR136R TR137R TR146X† TR163 TR164	H136R H137R H146X H163 H164	8.10 9.45 8.40 4.20 5.60	1000 1000 900 500 500	21/32x3 ²⁹ /32 21/32x4 ⁹ /46 1 ²⁸ /32x11/32x ²¹ /32 ²¹ /32x15/16 21/32x13/4	6.77 7.55 2.75 4.13 3.75	5.42 6.04 2.20 3.30 3.00	3.60 4.01 1.46 2.19 1.99
853-0049 853-0050 853-0051 853-0052 1153-0051	TR164R TR165 TR169 TR175 TR177†	H164R H165 H169 H175 H177	5.40 7.00 12.6 7.00 9.80	500 500 500 350 160	2 ¹ / ₃ 2 ¹ ×1 ³ / ₄ 2 ¹ / ₃ 2 ¹ ×2 ³ / ₄ 2 ¹ / ₃ 2 ¹ ×3 ¹ / ₆ 3 ¹ / ₆ 4 ¹ ×1 ¹ / ₅ 2 3 ¹ / ₆ 4 ¹ ×1 ² / ₅ 2	5.12 4.88 8.30 3.38 3.75	4.10 3.90 6.62 2.70 3.00	2.72 2.59 4.41 1.79 1.99
853-0054 853-0055 853-0056 853-0202 853-0057 853-0063	TR233R TR286† TR289† TR431 ZM9 303314	P6 PM8 HG9 HG303314	4.05 8.40 12.6 10.7 1.40 16.8	2200 750 750 1000 2400 2400	11/64X1 ³¹ / ₅₂ 11 ⁵ /16X1 ¹³ /16 1X2 ²⁵ /64 1X2 ⁷ /6 ⁹ /16X1 ³¹ / ₅₂ 1 ⁷ / ₅₂ X ⁶¹ / ₆₄	7.55 3.75 7.50 7.50 1.55 24.20	6.04 3.00 6.00 6.00 1.24 19.36	4.35 1.99 3.99 3.99 .82 12.87

INDUSTRIAL BATTERIES

Quality batteries are designed for industry's maximum service demands—long-life service on heavy-duty drain and long periods of use. Labeled "Not Designed for Retail Sales." Excellent for emergency use because of extreme reliability. Minimum quantity.

Stock	Mfr's	Volt-	Case	Per Case		Stock
No.	Type		Qty.	1-3	4-Up	No.
737-0960	1200	1.5	200	35.24	32.28	737-0812 737-0814
737-0930	790	1.5	192	29.66	27.17	737-0815 737-0821
•••••						737-0822

Stock No.	NEDA No.	Mfr's Type	Volt- age	Wt.	EACH
737-0812 737-0814 737-0815 737-0821 737-0822 737-0823	900E 903 904 905 906 911	4FH 4F5H 4F6H 6 Ign 6 Tel 6 Ind	1.5 7.5 9.0 1.5 1.5	11/4 7 8 2 2 2	2.35 10.55 11.80 2.10 2.47 2.23

ALKALINE BATTERIES

*Capacity in milliampere-hours

					S		EACH		
Stock No.	Mfr's Types	Mfr's Types	Volts	Cap'y mAH*	2 8	Dia. x Ht.	1-9	10- 24	25- Up
853-0300 853-0301	MN1300 MN1400	AL2 AL1	1.5 1.5	10000	D	121/64X213/32 65/64X115/16	1.25 1.00	1.13	1.00
853-0302 ' 853-0303	MN1500 MN2400	AL9 AL7	1.5	1800 750	AA	⁷ / ₃₂ X1 ³ 1/ ₃₂ ¹³ / ₃₂ X1 ³ / ₄	.88	.70	.60
853-0304	MN9100	ALN	1.5	560	N	28/64X11/8	.88	.70	.60

Digital Panel Meters

PANEL METER INDEX

Controllers and Pyrometers API256 Simpson255, 256	Edgewise Allied	Round Allied
Digital	Rectangular	Segmental Voltmeters Simpson255
Allied	Allied	VU Meters Simpson254

MODEL 2830 31/2-DIGIT DIGITAL PANEL METER

- Fast Rsponse Time
- Automatic Polarity

- High Input Impedance
- Out-of-Range Indication

MODEL 2830 31/2-DIGIT DIGITAL PANEL METER

Reliable, easy-to-read 3½-digit meter for DC voltage and current measurements. LED readout is .33" high; non-blinking, bi-polar display. Accuracy: 0.1%. Offers high input impedance, fast response time, solid state design. Zero span and balance are adjustable from front panel. Self-contained power supply. Programmed cyclical burn-in. Response time (to 1000 counts): less than 600 milli-seconds. Power required: 117 VAC ±10%, 50-400 Hz, 6 watts. Bias current: 2nA maximum at reference conditions. Input isolation: 250 V rms between power line ground and circuit ground. Size: 4.870 x 3.125 x 5.110" overall; panel cutout 4.375 x 2.813". Includes real connector. Shpg. wt. 4 lbs.

	Stock	Mfr's	DC	Maximum	Input Impedance	Max.	EA	СН
	No.	Туре	Range	Indication	or Voltage Drop	Input	1-3	4-Up
91 91 91 91 91 91	8-7000 8-7001 8-7002 8-7003 8-7004 8-7005 8-7006 8-7007 8-7008	22960 22961 22962 22963 22965 22966 22967 22968 22969	200 mV 2 V 20 V 200 V 20 μA 200 μA 20 mA 20 mA		100 megohms 1000 megohms 10 megohms 10 megohms 100 mV 100 mV 100 mV 100 mV	300 V 300 V 300 V 300 V 5 mA 14 mA 50 mA 140 mA	184.20 184.20 184.20 184.20 184.20 184.20 184.20 184.20	165.45 165.45 165.45 165.45 165.45 165.45 165.45 165.45



NEW!

3



-3 8*-

888

4.99*

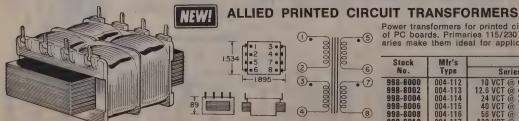
DIGITAL TEMPERATURE INDICATORS

- Reference Compensates, Amplifies, Scales and Linearizes Sensor Input Signals
- Range of °C or °F Made By Jumper Wire Connection on Terminal Board
- Analog Signal Available for Driving Recorders or Alarm Circuits

Digital temperature indicators feature solid state circuit in standard DIN case. Can be mounted from front of panel using standard DIN cutout of 3.6 x 3.6". Display consists of .43" high LED's. Low 6 VA power consumption. Accepts signal from platinum, thermistor or thermocouple sensors. All indicators are linearized over the ranges indicated in the tables below. Over-range indicated by flashing of an over-range indicator light and blanking of the display digits. Time lapse for over-range indication less than 1 second. Sensor open is indicated the same as over-range except for the 3-digit thermistor units which will display zero for the least significant digit.

With a simple change of a jumper on the rear terminal board, all indicators can be made to display either C° or F°. This feature can be remoted by use of a switch on a panel. Each indicator also has an analog output of 5 mV/least significant digit of display whether °C or °F which may be used to drive a recorder or as a signal for an alarm circuit. Source resistance of this output is 100 ohms. Common Mode Rejection error is less than ±1 degree when 240V, 60 Hz is applied between sensor input and chassis ground. Series mode rejection error is less than ±1 degree when a 100 mW peak-to-peak 60 Hz signal is applied.

Front panel and rear terminal board made of unbreakable Lexan TM plastic Case is stainless steel with handsome brushed finish. Operates from 115/ line voltage, 50/60 Hz. Mounting brackets included with each unit. *Sens on page 278.										urability.
3 DIGIT TEMPERATURE INDICATORS	Stock No.	Mfr's Type	Sensor Type	Sensor Code*			Accur. ±% LSD	1-9	EACH 1-9 10-24 25-Ui	
	998-6000 998-6002	60-06-01	J T.C.	E	0-500 0-300	0-999 0-600		208.00 124.55	166.25	150.00
3½ DIGIT INDICATORS	998-6004 998-6006 998-6008 998-6010 998-6012	60-06-02 60-01-02 60-01-02	K T.C. Plat. Plat.	E F D D G	0-900 0-1100 -199.9 to +199.9 -100 to +500 -20 to +100	0-1600 0-1999 -199.9 to +199.9 -100 to +1000 0 to 199.9	±.25% ±.25% ±.25%	279.50 167.00 167.00	222.55 222.55 133.00 133.00 133.00	200.85 120.00 120.00



Power transformers for printed circuit applications. Require less than one inch spacing of PC boards. Primaries 115/230 V, 50/60 Hz. 6 VA rating. Dual primaries and secondaries make them ideal for applications such as isolation in control circuits. Wt. 5 oz.

Stock	Mfr's	Seconda	EACH				
No.	Type	Series	Parallel	1-9	10-24	25-49	50-Up
998-8000 998-8002 998-8004 998-8006 998-8008 998-8010	004-112 004-113 004-114 004-115 004-116 004-117	10 VCT @ 600 mA 12.6 VCT @ 450 mA 24 VCT @ 250 mA 40 VCT @ 150 mA 56 VCT @ 50 mA 120 VCT @ 50 mA	5 V @ 1.2 A 6.3 V @ 900 mA 12 V @ 500 mA 20 V @ 300 mA 28 V @ 100 mA 60 V @ 100 mA	8.12 8.12 8.12 8.12 8.12 8.12	6.50 6.50 6.50 6.50 6.50 6.50	4.75 4.75 4.75 4.75 4.75 4.75	4.15 4.15 4.15 4.15 4.15 4.15

CUSTOM DESIGN YOUR OWN METER FACES

Order These Meters With Dial Faces of 1. 2 or 3-Colors and Scales of Your Own **Design or Choice**



TO ORDER CUSTOM METERS...

Minimum order is 25 pieces of any ONE type of Allied "Clear View" Panel Meter. Your name or logo is placed on a standard scale face for a one-time charge of \$35.00 (plus cost of meters). There is no extra charge when you order in quantities of 100 or

For meters with scales in one color other than black, \$60.00; two colors, \$85.00; three colors, \$110.00. This is a one-time charge—no extra charges on subsequent orders with the SAME meter face.

To Order: specify Stock Number, meter size and range, and send us logo, print of name and/or colors of scale desired. Approximately 6 weeks delivery time.

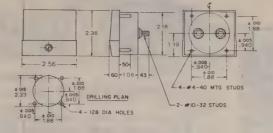
BEZEL MOUNT KIT

For a Modern, Streamlined Appearance

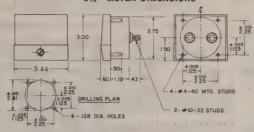
For 31/2" and 41/2" meters only. Package includes bezel, bracket and necessary screws for quick installation.

701-0470. For 41/2" Meters........... Each 3.37 701-0468. For 31/2" Meters..... Each 3.00

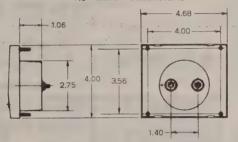
21/2" METER DIMENSIONS



31/2" METER DIMENSIONS



41/2" METER DIMENSIONS



DC MILLIAMPERES

- Full Scale Accuracy of 2%
- Shielded Meters Movements
- Easy-to-Read Knife-Edge Pointer
- Spring-Back Jewel Design
- Custom Faces Available

Wide selection of quality-made panel meters at low cost. Feature springback jewels and shielded meter movement for mounting on ferrous (steel) panels without loss of accuracy. Supplied with necessary mounting and terminal hardware. All have 1/4-28x 43" terminals. Mounting studs on 4½" models are 6-32x.53"; 2½" and 3½" models. 4-40x.53". *Indicates rectifier type. Av. shpg. wt. 1 lb.

						D	C MICROA	MMETE	ERS							
			21/2"	METERS				3½"	METERS			, 2 , m 80	4½" N	METERS		
Range	Ohms	Stock		EAC	Н		Stock		EAC	Н		Stock		EAC	Н	
		No.	1-	10- 24	25- 49	50- Up	No.	1-	10- 24	25- 49	50- Up	No.	1- 9	10- 24	25- 49	50- Up
25-0-25 0-50 50-0-50	3000 3000 2000	701-0010 701-0011 701-0012	19.14 18.48 16.61	17.40 16.80 15.10	15.80 15.20 13.70	14.70 14.15 12.75	701-0230 701-0234 701-0238	20.79 19.38 17.65	18.90 17.62 16.05	16.25 • 15.96 14.52	15.15 14.85 13.50	701-0309 701-0311 701-0313	20.68 20.29 18.26	18.80 18.45 16.60	17.00 16.70 15.00	15.80 15.50 13.95
0-100 100-0-100 0-200	2000 600 600	701-0013 701-0014 701-0015	16.39 16.06 15.51	14.90 14.60 14.10	13.50 13.20 12.80	12.50 12.30 11.90	701-0242 701-0245 701-0247	17.21 16.85 16.55	15.65 15.32 15.05	14.15 13.90 13.65	13.15 12.90 12.63	701-0315 701-0317 701-0319	17.93 17.65 17.32	16.30 16.05 15.75	14.80 14.52 14.25	13.75 13.50 13.25
						Ε	C MILLIAI	METE	RS				,			
0-1 0-3 0-10	14 5 5.0	701-0020 701-0021 701-0022	15.62 15.62 15.62	14.20 14.20 14.20	13.30 13.30 13.30	12.50 12.50 12.50	701-0250 701-0252 701-0254	16.44 16.44 16.44	14.95 14.95 14.95	14.05 14.05 14.05	13.20 13.20 13.20	701-0321 701-0323 701-0325	17.76 17.76 17.76	16.15 15.15 16.15	15.05 15.05 15.05	13.95 13.95 13.95
0-20 0-50 0-100	2.5 1.0 .5	701-0024 701-0025 701-0026	15.62 15.90 15.90	14.20 14.46 14.46	13.30 13.60 13.60	12.50 12.85 12.85	701-0258 701-0260 701-0264	16.44 18.15 18.15	14.95 16.50 16.50	14.05 15.45 15.45	13.20 14.75 14.75	701-0329 701-0331 701-0333	17.76 18.15 18.15	16.15 16.50 16.50	15.05 15.65 15.65	13.95 14.80 14.80
0-200	.25	701-0027	15.90	14.46	13.60	12.85	701-0266 DC AMM	18.15 ETERS	16.50	15.45	14.75	1 -	1 -		<u> </u>	
0-1	.050	701-0001	15.90	14.46	13.60	12.85	701-0201	18.15	16.50	15.45	14.75	701-0301	18.15	16.50	15.65	14.80
0-5	.010	701-0001	15.90	14.46	13.60	12.85	701-0201	18.15	16.50	15.45	14.75	701-0301	18.15	16.50	15.65	14.80
0-10	.005	701-0003	15.90	14.46	13.60	12.85	701-0210	18.15	16.50	15.45	14.75	701-0305	18.15	16.50	.15.65	14.80
0-15	.0033	701-0004	15.90	14.46	13.60	12.85	701-0215	18.15	16.50	15.45	14.75	701-0307	18.15	16.50	15.65	14.80
							MILLIVO					T		1		1 1 1 1 1
0-50 0-100	10 20	701-0040 701-0045	15.78 15.78	14.35 14.35	13.50 13.50	12.70 12.70	701-0268	17.82	16.20	15.30	14.35	701-0337 701-0339	18.15 18.15	16.50 16.50	15.65 15.65	14.80 14.80
					D	C VOLT	METERS (1000 O	hms/Vo	lt)						
0-10		701-0100	17.71	16.05	14.95	13.80	701-0275	17.76	16.15	15.05	13.95	701-0341	19.25	17.50	16.35	15.50
0-15 0-30		701-0105 701-0110	17.71 17.71	16.05 16.05	14.95 14.95	13.80 13.80	701-0277	17.76 17.76	16.15 16.15	15.05 15.05	13.95 13.95	701-0343 701-0345	19.25 19.25	17.50 17.50	16.35 16.35	15.50 15.50
0-50		701-0110	17.71	16.05	14.95	13.80	701-0273	17.76	16.15	15.05	13.95	701-0343	19.25	17.50	16.35	15.50
0-100		_	-		_	_	701-0283	17.76	16.15	15.05	13.95	701-0349	19.25	17.50	16.35	15.50
0-150	,	701-0125	17.71	16.05	14.95	13.80	701-0285	17.76	16.15	15.05	13.95	701-0351	19.25	17.50	16.35	15.50
0-300							701-0287	17.76	16.15	15.05	13.95	701-0353	19.25	17.50	16.35	15.50
					F				hms/Vo							
0-150° 0-300°		701-0435 701-0440	19.25 19.25	17.50 17.50	16.35 16.35	15.50 15.50	701-0445 701-0450	20.07	18.25 18.25	16.65 16.65	14.85 14.85	701-0455 701-0460	20.24	18.40 18.40	16.70 16.70	15.70 15.70
0-000			.0.20	.7.00	.0.00			(3 Millio								
0-5		Av	ailable Sp	ecial Orde	er Only		701-0401	16.13	15.40	14.50	13.65	701-0420	19.58	17.80	16.90	15.40

Available Special Order Only

701-0403 17.00 16.30 15.40 14.50 701-0425 19.58 17.80 16.90 15.40

A wide range of "wide-vue" panel meters for industrial applications. "Wide-vue" panel meters have specially formulated plastic covers for wide-angle readability and maximum protection. Especially useful for applications which require instant and accurate readings. Those models which have 3½" meters have scales which are ½" longer than conventional types. All meters have "self-shielded" movement. AC milliammeters and ammeters are calibrated for use on 25 Hz through 800 Hz. All others AC meters have iron-vane movements. Terminals are ¼-28 studs with hex nuts, except model 1212 with 1½", 8-32. Accuracy: ±2% of full scale, except Rectifier Types with an accuracy of ±3% of full scale. For exact meter dimensions of "Wide-vue" panels meters on this and facing page, see "Meter Dimensions" below. Av. shpg. wt. 1 lb.

METER DIMENSIONS

Inch

3.00 1.50 2.17 2.17 2.17

2.73 2.73 2.75 2.75 2.75 2.73

2.75 2.73 2.75 2.75

Inch

1.23 .87 1.06 1.06 1.06

1.08 1.08 1.08 1.08 1.08

1.08 1.08 1.08 1.68

A Inch

8.00 1.76 2.46 2.47 2.47

3.25 3.25 4.68 4.68 3.25

4.68 3.25 4.68 4.68

Mfr's Type

1327 1327T 1329 1329T 1347

"Wide-Vue" Panel Meters

0-50 | 918-2958 | 22.55 | 20.25 | 18.23 |

AC VOLTMETERS (See Below for dimensions)

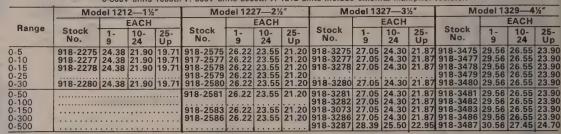
		Model 12	57-21/2"		ı	Aodel 13	57-3½"	1011		Model 13	59-41/2"	
Range			EACH				EACH					
	Stock No.	1-	10- 24	25- Up	Stock No.	1-	10- 24	25- Up	Stock No.	1-	10- 24	25- Up
0-50 0-150 0-300	918-2981 918-2983 918-2986	23.71 24.88 24.88	21.30 22.35 22.35	19.17 20.11 20.11	918-3783 918-3786	26.72 26.72	24.00 24.00	21.60 21.60	918-3881 918-3883 918-3886	27.72 28.39 28.39	24.90 25.50 25.50	22.41 22.95 22.95

AC MILLIAMMETERS (See Below for dimensions)

			AMMETERS (
0-5	 	 	. 918-3704	23.71	21.30	19.17	918-3804	25.22	22.65	20.39

DC VOLTMETERS

5-300V units $1000\Omega/V$. 500V units $2000\Omega/V$. 1212 units include external multiplier resistor.



DC MILLIVOLTMETERS

		918-3270 26.22 23.55 21.19 918-3470 28.39 25.50 22.95
0-50		

DC MICROAMMETERS

	918-2229															
0-100	918-2230															
0-200									918-3231	27.05	24.30	21.87				
0-500					918-2532											
25-0-25	918-2233	30.73	27.60	24.84					918-3233	32.57	29.25	26.33	918-3433	34.90	31.35	28.22
50-0-50	918-2234	27.56	24.75	22.28					918-3234	29.56	26.55	23.90	918-3434	33.07	29.70	26.73
100-0-100	918-2235	25.05	22.50	20.25	918-2535	26.22	23.55	21.20	918-3235	27.22	24.45	22.00	918-3435	30.06	27.00	24.30
500-0-500					918-2536	24.88	22.35	20.11	918-3236	25.72	23.10	20.79	918-3436	27.22	24.45	22.00

DC MILLIAMMETERS

	918-2250															
	918-2259	24.38	21.90	19.71	918-2558	25.05	22.50	20.25	918-3258	26.22	23.55	21.20	918-3458	28.39	25.50	22.95
0-100					918-2560	25.05	22.50	20.25	918-3283	26.22	23.55	21.20	918-3460	28.39	25.50	22.95
0-250	918-2263	24.38	21.90	19.71					918-3263	26.22	23.55	21.20	918-3463	28.39	25.50	22.95
0-500	918-2265	24.38	21.90	19.71					918-3265	26.22	23.55	21.20	918-3465	28.39	25.50	22.95

DC AMMETERS

1212—1½" self-contained thru 10A. 1227—2½", 1327—3½", 1329—4½", self-contained thru 50A.
*All other range meters are 50mV and require external shunt.

0-1														
0-2		 	 918-2502	25.05	22.50	20.25					918-3402	28.39	25.50	22.95
0-3														
	918-2204													
0-10		 	 918-2505	25.05	22.50	20.25	918-3205	26.22	23.55	21.20	918-3405	28.39	25.50	22.95
*0-100		 	 				918-3211	26.22	23.55	21.20	918-3411	28.39	25.50	22.95
*0-200		 	 								918-3413	28.39	25.50	22.95

TAUT BAND DC MICROAMMETERS

Microammeters featuring sensitive taut-band movement deliver greatly increased repeatability and lower resistance. Have 25% fewer parts than conventional DC microammeters with core magnet movements. Excellent for a wide variety of commercial, industrial and military applications.

	Mo	del 13271	-3½"		N	lodel 132	9T-4½"	
Range	Stock		EACH		Stock		EACH	
	No.	1-9	10-24	25-Up	No.	1-9	10-24	25-Up
0-10 0-15	918-3124 918-3125	52.60 47.09	47.25 42.30	42.52 38.07	918-3324	56.95	51.15	46.04
0-25 0-50	918-3126 918-3127	45.59 34.90	40.95	36.86 28.22	918-3326 918-3327	49.60 37.58	44.55 33.75	40.09 30.38

PORTABLE SHUNTS FOR DC AMMETERS

Amps	Stock No.	Туре	1-9, Ea.	10-24, Ea.	25-Up, Ea
50	918-6709	6709	13.00	11.70	10.53
75	918-6711	6711	13.00	11.70	10.53
100	918-6713	6713	13.00	11.70	10.53
150	918-6714	6714	13.00	11.70	10.53
200	010 6715	6715	12 00	11 70	1 10 52

MODEL 1379 WIDE-VUE WATTMETERS

Dynameter-type meters for measuring DC and single-phase power with frequencies to 250 Hz. Use with power factors below 50%. Calibrated for either magnetic or non-magnetic panels and for frequency range from 25 to 125 Hz. * Indicates compensated meter accuracy of $\pm 3\%$ of full scale reading; others have $\pm 2\%$ of full scale reading.

Stock	Range	Max.	Max.		EACH	
No.	Watts	Amps	Volts	1-9	10-24	25-Up
918-3950 918-3955 918-3956 918-3957	0-10° 0-75 0-150 0-300	.175 1.0 2.0 4.0	300 150 150 150	87.17 65.30 65.30 65.30	78.30 58.65 58.65 58.65	70.47 52.79 52.79 52.79 52.79
918-3958 918-3959 918-3960 918-3961	0-600 0-750 0-1500 0-3000	4.0 10.0 10.0 20.0	300 150 300 300	69.64 65.30 69.63 69.63	62.55 58.65 62.55 62.55	56.30 52.79 56.30 56.30

VII METER (Bange -20 to +3 db)

		Description		EACH	
Stock No.	Туре	Inches	1-9	10-24	25-Up
918-1491	543	3½ A Scale	42.08	37.80	34.02

254 • ALLIED

PANEL METERS

Wide-Vue and Edgewise Panel Meters and Controllers

31/2" EDGEWISE METER RELAY AND CONTACTLESS CONTROLLER

Uses infinite-life lamps, photoconductor sensors, all solid-state circuits. Plug-in output relays for each control point handle 5 amps at 115 VA resistive load on each contact (DPDT types handle 10 amps total per point). Fail safe-relays open in case of power failure. Accuracy: ±2% full scale; dead band, 0.25%. For 115 VAC, 50-500

3623XA Single Set Point

Panna	Stock No.	Mfr's	EACH			
Range	Stock No.	Type	1-4	5-Up		
0-50 µA DC	918-6300	16839	149.80	134.55		
0-100 µA DC	918-6302	16841	142.45	127.95		
0-50 mV DC	918-6306	16849	135.10	121.35		
0-10 VAC	918-6310	16853	142.45	127.95		

3623XA Double Set Point

0-100 uA DC 918-6	180.53	162.15
0-50 mV DC 918-6	176.85	158.85

11/2", 21/2" EDGEWISE PANEL METERS



- Accuracy ±2% of Full Scale
- Self-Shielded Core Magnet Movements

Compact meters with self-shielded core magnet move-ments—calibrations remain unaffected by stray magnetic fields. DC Voltmeters have 1000 ohm/volt sensitivity except (*) 2000 ohms/volt. Solder lug terminals. In molded lucite dust-proof case. With bezel and two speed nuts. Shpg. wt, 12 oz.

METER DIMENSIONS						
Model No.	Flange with Bezel	Inches Height, Barrel	Depth (Total)	Scale Langth		
1522 1542	1.00x3.25 1.00x3.25	1.22 1.22	3.50 3.50	1.875 1.875		

TYPE 1522 21/2" METERS

Stock	Range	EACH		
No.		1-9	10-24	25-Up
918-4120 918-4140 918-4142 918-4145	0-5 DC Ammeter 0-1 DC Milliammeter 0-10 DC Milliammeter 0-100 DC Milliammeter	25.72 25.72	24.75 23.10 23.10 24.15	20.79 20.79
918-4148 918-4131 918-4132	0-500 DC Milliammeter 0-50 DC Microammeter 0-100 DC Microammeter	33.73	24.15 30.30 27.30	27.27

	TYPE 1542 21/2"	
913-4196	VU Meter "A" Scale	42.75 38.40 34.56







Wide-Vue meters for broadcast and communications use Wide-Vue meters for broadcast and communications use. Meet all electrical and ballistic specifications of Bell Laboratories and ANSI. Show volume level in both VU and percentage modulation. Type A scale stresses level in VU for monitoring wire lines. Type B scale stresses percentage of transmitter output in radio communications. Dimensions: See meter dimension table on facing page. Av. shpg. wt. 1 lb.

Model 1347-A Scale-31/2"					
Stock EACH					
No.	1-9	10-24	25-Up		
918-3596	42.80	37.80	34.02		
Me	odel 1349-A	Scale-41/2"			
918-3696	45.93	41.25	37.13		
Me	odel 1347-B	Scale-31/2"			
918-3598	42.08	37.80	34.02		

SEGMENTAL VOLTMETERS

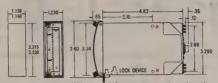
Models 1347 and 1349. Voltmeters measure voltage from 100 to 130 AC. Used for monitoring line voltage. Operating frequency range is from 20 to 20,000 Hz. Accuracy: $\pm 0.5\%$ center scale at $25\,^{\circ}\mathrm{C}$ and 60 Hz sine wave. Frequency influence, less than 0.5%. Maximum input: 150 V_{RMS} . Dimensions: See meter dimension table on facing page

Model 1347. 31/2" Scale. 11/2 lbs. 918-3582. 1-3..... Each 77.49 Model 1349. 41/2" Scale. 11/2 lbs. 918-3682. 1-3...... Each 96.36

4-Up..... Each 69.60

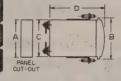
• Front-Panel Mount





STACKING EDGEWISE PANEL METERS





- Self-Shielded Core Magnet Movement
- Accuracy ±2% of Full Scale
- Scale Extends to Nearly Full Width

Miniature meters for easy installation in panels, modern streamlined appearance for equipment. Boast "self-shielded" core magnet movement that eliminates protruding barrel. Meter scale extends to nearly full width and height of meter—no wasted space. Accuracy, ±2% of full scale reading. Type 1921: scale length, 1.37"; panel cutout, .525x1.718"; depth behind panel, 2.3". Type 1622: scale length, 1.85"; panel cutout, .562x2.312"; depth behind panel, 2.3". Av. shpg. wt., 34 lb.

TYPE 1921 11/2" METERS

Stock	Range	EACH		
No.	ango	1-9	10-24	25-Up
918-4421 918-4440 918-4431	0:15 DC Voltmeter 0-1 DC Milliammeter 0-50 DC Microammeter	27,22	24.90 24.45 31.80	22.00

TYPE 1622 21/2" METERS

		-	
918-4361	0-15 DC Voltmeter	29.39	26.40 23.76
918-4362	0-25 DC Voltmeter	29.39	26.40 23.76
918-4344	0-50 DC Milliammeter		27.30 24.57
918-4331	0-50 DC Microammeter	. 30./4	33.00 29.70

BEHIND-PANEL BEZEL MOUNTS FOR "WIDE-VUE" SERIES



For modern, streamlined appearance on $3\frac{1}{2}$ " and $4\frac{1}{4}$ " "Wide-Vue" meters on facing page and at left. Also interchangeable with flush and recess meters of many popular styles. Behind panel mounting on thicknes of $\frac{1}{6}$ " to $\frac{1}{6}$ ". Black satin enamel finish. Bezel, brackets, screws, temperature of the stream of the str plate, instructions. Av. shpg. wt. 8 oz.

Stock	Mfr's	Meter Size	EACH
No.	Type	Inch	
918-2799	1253	3½	4.50
918-2122	1123	4½	4.50

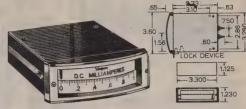


8" TAUT-BAND DC MICROAMMETER

Sensitive DC microammeter boasts scale nearly 7" long. Meter accuracy is ±2% of full scale reading. With sensitive taut-band movement. Av. shpg. wt. 1 ib.

	Stock	1	EACH	
Range	No.	1-9	10-24	25-Up
0-50	918-1927	45.42	40.80	38.85

31/2" EDGEWISE PANEL METERS



- Self-Shielding Core Magnet Movement
- Front-of-Panel Zero Adjustment Screw
- Accuracy ±2% of Full Scale

Attractive edgewise meters have self-shielding 1% core magnet movement. Accuracy, $\pm 2\%$ of full scale; $\pm 1\%$ available on special order. Scale length equal to 2.6%. Zero adjustment from the front (screw is on right side of meter). Horizontal mounting; vertical mounting is available on special order. Illumination available. Highest self-contained range is 10 amps DC, 5 amps AC and 500 volts AC and DC. Shpg. wt. 1% lbs.

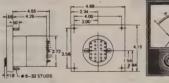
TYPE 3623 DC METERS

Stock	Mfr's	Ranges	EA	CH
No.	Туре		1-4	5-Up
918-8002	16862	0-25 DC Microammeter	49.10	44.10
918-8004	16863	0-50 DC Microammeter	46.26	41.55
918-8006	16864	0-100 DC Microammeter	43.59	39.15
918-8008	16865	0-200 DC Microammeter	41.08	36.90
918-7010	16866	0-500 DC Microammeter	39.91	35.85
918-7012	16867	25-0-25 DC Microammeter	46.76	42.00
918-7014	16868	0-1 DC Milliammeter	38.91	34.95
918-7016	16869	4-20 DC Milliammeter	42.92	38.55
918-7018	16870	0-50 DC Millivoltmeter	40.08	36.00
918-7020	16873	0-25 DC Voltmeter	42.92	37.05
918-7022	16874	0-50 DC Voltmeter	42.92	37.05
918-7024	16880	0-10 DC Voltmeter	42.92	37.05
918-7026	16881	0-15 DC Voltmeter	42.92	37.05

TYPE 3643 AC METERS

Stock	k Mfr's Ranges		EAC	H
No.	Type		1-3	4-Up
918-7028	16871	0-5 AC Amps, Rectifier	54.78	49.20

CONTACTLESS METER RELAYS





Combines indicator, switch and ultra-high gain amplifier. Use where utmost reliability on small differential or small power is desired. Has infinite-life lamps, photoconductor sensors, all solid-state circuit. Built-in output relays for each control point handle 10 amps at 115 VAC resistive on each contact (DPDT types handle 20 amps total per point). Relays open in case of power failure. Accuracy: ±2% full scale; deadband, 0.25%. For 115V, 50-500 Hz AC.

Model 3344XA Single Set Point

Range	Stock No.	Type	1-3 Ea.	4-Up, Ea.
0-150% AC Load‡	918-6340	21298	155.31	139.50
0-150% AC Load*	918-6341	21296	158.48	142.35
0-1 Amp 0-3 Amp 0-25 Amp	918-6342 918-6343 918-6344	21301 21303 21307	206.58 152.81 194.39	185.55 137.25 174.60

‡Use 5 Amp Secondary Current Transformer. * Use Simpson 186 Current Transformer.

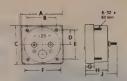
CURRENT TRANSFORMERS

Inserted one-turn primary type for use with switchboard and panel AC ammeters where external transformers are required. Hi-dielectric insulation. Secondary rated 5 amps. Wt. 1 lb.



Amps	Stock No.	Туре	EACH
50	918-3053	1293	34.90
75	918-3065	1306	25.72
100	918-3057	1297	21.38
150	918-3058	1298	19.04
250	918-3066	1313	19.04
300	918-3059	1300	21.38
400	918-3061	1305	23.71
500	918-3060	1301	25.72





	Temp.	Range	Thermo-	EACH		
Stock No.	٥F	°C	couple	1-9	10-Up	
716-0600	-75/225	60/100	1/0	55.52	47.50	
716-0602	0/300	0/150		55.52	47.50	
716-0603	0/500	0/260		55.52	47.50	
716-0604	0/750		1/C	55.52	47.50	
716-0606	0/1500		1/C	55.52	47.50	
716-0608	0/2500		1/C	51.14	43.75	

603-1 PYROMETER-1% ACCURACY

As Model 503 above, but 1% accuracy. Scale arc 5".

716-1001 716-1002 716-1003	0/300 0/500 0/750	0/260	1/C 1/C 1/C		59.90 59.90 59.90
----------------------------------	-------------------------	-------	-------------------	--	-------------------------

Controllers and Pyrometers

MODEL 503 PYROMETERS

- · + 2% Full-Scale Accuracy
- Thermocouple Actuated
- External Resistor for Thermocouples
- Easy-to-Read 4" Arc Scale

Measures elevated temperatures (temperatures beyond the range of mercury thermometers). Available in several ranges to fit your particular requirements. Easy to read 4" arc scale. Shielded meter mechanisms—may be mounted on either magnetic or non-magnetic panels. Easy installation—all connections located at rear terminals. Accuracy: ±2% of full scale. Thermocouple actuated. Thermocouple Break Protection: Standard up-scale. Thermocouple Resistance: External sistor adjusts for thermocouples up to 10 ohms. Cold-Junction Compensation: Automatic bimetal correction. Copper-error compensated. Phenolic case. 1/C: Iron Constantan. Shpg. wt: 2lbs. Measures elevated temperatures (temperatures beyond

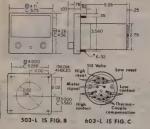
TABLE OF DIMENSIONS IN INCHES

TABLE OF BINETION OF THE INCOME.										
Type	A	В	C	D	E	F	G	H	J	
503 603	4.71 5.75	4.00 5.25	4.27 4.36	2.02 2.15	3.56 3.00	2.79 2.79	0.76 0.76	1.95 1.95	2.62 2.62	

MODEL 7045 PYROMETERS

Thermocouple actuated, direct reading millivolt pyrometers. Standard taut band meter movements for dependable, frictionless operation and nearly perfect repeatability. Self-shielding movements. $\pm 2\%$ accuracy. Thermistor type coppereror compensation, Automatic bimetal cold junction compensation, Current Sen: approx. 4 ohms per millivolt (260 microamperes). Ext. adjustable 10 ohm resistor.

	Temperature Range		Thermo-	Ext.	EACH		
Stock No.	oF.	°C	couple	Ohms	1-9	10-24	25-Up
716-7002 716-7004 716-7006 716-7008	0/300 0/500 0/800 0/1500	0/150 0/260 0/430 0/800	1/0	10 10 10 10	49.87 49.87 49.87 47.34	42.66 42.66 42.66 40.50	38.40 38.40 38.40 36.45



Model 503 is (B) Dimension Model 603 is (C) Dimension

"COMPACK" METER-RELAY CONTROLLERS

ON-OFF CONTROLS: MODELS 505-KH (SINGLE SET POINT) AND 503-KD (DOUBLE SET POINT). Contain power supply, control circuitry and load relay coupled to contactles Optical Meter Relay. Control circuit consists of simple phase sensitive AC bridge which triggers an SCR On or Off as the photocell changes resistance. The SCR "On" energizes the load relay coil. All components are normally energized below set point, keeping system fail-safe. Connections made to terminals in rear of meter barrel as shown at left. May be converted to push-button reset latching circuit. "A "arc scale length. SPDT (Form C) relay contacts rated 5 amps at 115 VAC. Shielded meter mechanisms permit mounting on either magnetic or non-magnetic panel. Continuous signal indication and direct set point adjustment. Infinite noise rejection. (*) Taut-band meter.

(†) AC LOAD METER. Range 0-47 mA AC to match secondary of current transformers listed. Dial reads 0-150% of motor load. For use with any transformer listed below (monitor or control motor load).

ON-OFF TEMPERATURE CONTROLS: MODELS 603-KH (SINGLE SET POINT) AND 603-KD (DOUBLE SET POINT). Medium resistance, thermocouple actuated pyrometers with electrical bridge type cold junction compensation. Automatic standard upscale thermocouple break protection. Copper error compensation. Thermocouple Resistance: Adjustable compensation up to 10 ohms. Mirrored scales are calibrated in both °F and °C. All models listed have taut-band meter movements. 5" arc scale length. Shielded meter mechanisms for mounting on either magnetic or non-magnetic panel. Set Point Capability: High, low or double. Adjustable pointer moves full scale, ½% resolution. Minimum span between double set points: 3%. Accuracy: ±2% of full scale. Available in ranges from 0/300°F to 0/1500°F. I/C: Iron Constantan. C/A: Chromel Alumel.

ON-OFF CONTROLS

Range DC	Mode	el 503-KH Si	ngle Set Po	int	Model 503-KD Double Set Point				
	Stock	EACH			Stock	EACH			
	No.	1-9	10-24	25-Up	No.	1-9	10-24	25-Up	
0-100 μA* 0-1 mA 0-50 mV AC Load	716-0344 716-0345 716-0347 716-0349	157.17 147.70 150.22 152.79	134.45 126.35 128.50 130.70	125.73 118.16 120.17 122.23	716.0333 716-0336 716-0338 716-0340	186.45 176.99 179.44 182.01	159.50 151.40 153.50 155.70	149.16 141.59 143.55 145.61	

(†) TRANSFORMERS AVAILABLE FOR AC LOAD METER

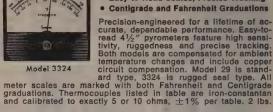
Stock No.	Range Amps	EACH	Stock No.	Range Amps	EACH
716-2003	3	. 14.17	716-2015	15	14,17
716-2005	5	14.17	716-2025	25	14.17
716-2007	7.5	14.17	716-2050	50	14.17
716-2010	10	14.17			

ON-OFF TEMPERATURE CONTROLS

Temp.	Mod	del 603-KH	Single Set	Pt.	Model 603-KD Double Set Pt.				
Range	Thermo- couple	Stock		EACH	Stock		EACH		
°F	Coupie	No. 1-9	1-9	10-24	25-Up	No.	1-9	10-24	25-Up
0/300	1/0	716-0821	186.85	159.85	143.86	716-0802	216.09	184.85	166.37
0/500	I/C	716-0822	182.42	156.05	140.45				

PYROMETERS

- Two Models-Standard and Rugged Seal
- Easy-to-Read Scales, Precise Tracking



MODEL 29

Stock	Ran	qe	Ext.	Sens.	EACH		
No.	oF	°C	Ohms	in mA	1-	10- 24	25- Up
918-0525 918-0526 918-0527 918-0528	0-500	100-+120 20-+150 20-+260 20-+400	10 5 10 10	.40 .40 .35 .30	47.09	42.30 42.30 42.30 42.30	38.07 38.07
918-0529 918-0530 918-0531	0-1000 0-1500 0-2000	-20-+540 -20-+820 -20-+1200	10 10 10	.28 .42 .43	43.76	42.30 39.30 39.30	35.37

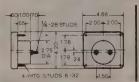
MODEL 3324 RUGGED SEAL

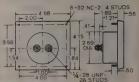
918-5910 -150-+250 -	100-+120 10	.40	64.13 57.60 51.84
918-5911 0-300 -	-20-+150 5	.40	64.13 57.60 51.84
918-5912 0-500 -	-20-+260 10	.35	64.13 57.60 51.84

THERMOCOUPLES

*SS indicates Stainless Steel, GC indicates Glass Cloth.

Stock	Resis.	Over-		Gauge	EACH			
No. (oh	(ohms)	braid*			1-9	10-24	25-Up	
918-4695 918-4696 918-4697	5 10 10	SS GC GC	162 137 34	20 24 30	20.37 11.00 9.25	18.30 8.80 7.40	16.47 6.60 5.50	

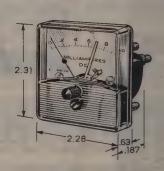




MODEL 29

MODEL 3324

LOW-COST ALARM METER-RELAY



Monitors motor load, gas level, overvoltage, current leakage and overtemperature. Indicating meter pointer carries gold-plated steel contact. Adjustable alarm pointer carries two small gold-plated magnets for a contact. When indicating pointer reaches an alarm setting, the magnet positively locks the contacts together, closing the alarm circuit. Use a minimum of 6 volts AC or DC. Will handle up to 115 volts, 100 mA. Manual reset. Isolation voltage rating between signal and contact circuits is 300 volts DC, maximum. Full scale adjustable set point. Low voltage contact reliability. (*) Coil resistance: 2.5k. (†) AC Load Alarm, low set point. Low voltage match user with match current transformers listed at left. Specify transformer primary range to match use. Wt: 8 oz.

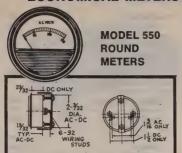
Stock	Range	EACH					
No.	nalige	1-9	10-24	25-Up			
716-0120 716-0130 716-0140 716-0150 716-0102 716-0101	0-1 mA DC 0-1 mA AC 0-100 μA DC* 0-50 mV DC AC Load† AC Load§	66.95 66.95 68.33 66.94 67.63 67.63	53.55 53.55 54.55 53.45 54.00 54.00	48.20 48.20 49.10 48.10 48.60 48.60			

ECONOMICAL METERS WITH ± 5% ACCURACY

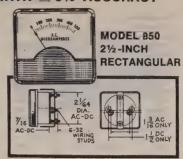
Allied® Quality Panel Meters



Edgewise meter with crystal clear front dresses up panel and saves panel space. DC types are polarized solenoid design. AC types are double-vane repulsion design with jeweled bearing. Mount in rectangular hole, 1°1½-2" x 1°½-2". Space-saving edgewise instruments have accuracy well within ±5%. High temperature polystyrene case. 1.2" scale length. Black escrutcheon plate supplied. Av. shpg. wt: 6 cz.



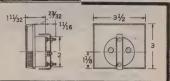
Dependable meters are accurate well within \pm 5%. Rimless metal case and bezel finished in no-glare telephone black. DC types are polarized-vane solenoid design. AC types are double-vane repulsion design with jeweled bearing. Easy to read scales. Mount in $2\%_2{}^{\nu}$ panel hole. Meter body has $2\%_2{}^{\nu}$ diameter. Age and molsture resistant all-metal dials, black on white for high visibility. Av. Shpg. wt: 6 oz.



Attractive and dependable rectangular panel meters with snap-on plastic crystal. Accuracy is well within \pm 5%. DC types are polarized-vane solenoid design. AC types are double-vane repulsion design with jeweled bearing. Mount in 2 $\frac{9}{2}$ 2" x 2 $\frac{1}{3}$ 2" panel hole. Dimensions: 2 $\frac{1}{3}$ 4" body dlameter; 2 $\frac{9}{1}$ 6" x 2 $\frac{1}{3}$ 2" front. Crystal admits light from all sides and accentuates dial appearance. Av. shpg. wt: 6 oz.



MODEL 750 31/2 - INCH RECTANGULAR



Accuracy well within ±5%. DC movements feature sensitive moving magnet (bridge type) design with high torque ALNICO magnets. AC movements have repulsion vane design. Both AC and DC models incorporate jeweled bearings to assure excellent repeatability and extended service life. High-impact, heat-resistant polystyrene meter fronts. Mount in 3½" x 3" panel hole. Average shipping weight: 6 ounces.

DC MILLIAMMETERS. AMMETERS AND VOLTMETERS

	MODEL 350	EDGEV	VISE			M	ODEL 5	50 ROU	ND		MODE	EL 850	RECTAN	GULAR		MODE	L 750 f	RECTAN	GULAR	
	Stock		EA	СН		Stock			CH		Stock		EA	CH		Stock		EA	CH	
Range	No.	1- 9	10- 24	25- 49	50- Up	No.	1- 9	10- 24	25- 49	50- Up	No.	1-9	10- 24	25- 49	50- Up	No.	1- 9	10- 24	25- 49	50- Up
0-1 mA DC	701-3300 701-3302	7.35 6.50	5.88 5.20	4.91	4.20 3.82	701-5336	6.63	i 5.30 pecial Ord	4.43	3.79	701-8336 701-8302	6.83 5.10	5.46 4.08	4.56 3.41	3.90 2.92	701-7336	7.90	6.32	5.28	4.51
0-5 mA DC 0-10 mA DC	701-3303	6.38	5.10	4.26	3.72	Availa	ble on S	pecial Or	der Only		701-8303	4.85	4.08	3.24	2.77	701-7303	7.90	6.32	5.27	4.51
0-25 mA DC 0-50 mA DC	Availal 701-3306	ble on Sp i 6.38	ecial Ord I 5.10	ler Only 1 4.26	3.72			ecial Ord			701-8305 701-8306	4.50	3.60 3.60	3.00	2.57	****				
0-100 mA DC	701-3307	6.38	5.10	4.26	3.72	701-5307	4.93	3.94	3,29	2.82	701-8307	4.50	3,60	3.00	2.57	. ****				
0-150 mA DC 0-200 mA DC			pecial Ord pecial Ord		1			ecial Ord		3	701-8308 701-8309	4.50	3.60 3.60	3.00	2.57 2.57	701-7309	8.30	6.64	5.54	4.74
0-300 mA DC 0-500 mA DC	Availa	ble on Si	pecial Ord	der Only	4	Availa	ole on S	pecial Oro pecial Oro	der Only		701-8310 701-8312	4.50 4.50	3.60 3.60	3.00 3.00	2.57 2.57	ý				
0-1 A DC			pecial Ord			701-5201	4.93	3.94	3.29	2.82	701-8201	5.08	4.06	3.39	2.90					
0-5 A DC 0-10 A DC	701-3203 701-3205	6.25	5.00	4.18	3.58	701-5203 701-5205	4.93 4.93	3.94	3.29	2.82	701-8203 701-8205	5.08 5.08	4.06 4.06	3.39	2.90 2.90	701-7205	7.03	5.62	4.69	4.01
0-15 A DC			pecial Ord		1 3.30	Availa	ble on S	pecial Or	der Only	• 3	701-8206	5.08	4.06	3.39	2.90					
0-25 A DC 5-0-5 A DC	Availa	blo on C	pecial Or			701-5207	5.52	4.42 pecial Or	3.69	3.16	701-8207 701-8211	5.65	4.52	3.77	3.23	****				
10-0-10 A DC			pecial Ord						,		707-0211	3.03	4.32	3.77						
20-0-20 A DC 30-0-30 A DC			*****		****	701-5214	5.52	4.20	3.51	3.00	701-8215	5.65	4.52	3.77	3.23					
50-0-50 A DC		****	****			701-5216	5.52	4.20	3.51	3.00	701-8216	5.65	4.52	3.77	3.23					
0-3 V DC 0-5 V DC	Availa 701-3104	ble on S _i I 6.38	pecial Ord	der Only 1 4.25	3.65	701-5102 701-5104	4.93 4.93	3.94	3.29	2.82	701-8102 701-8104	5.00	4.00	3.34	2.86					
3-0-3 V DC						701-5103	4.93	3.94	3.29	2.82	Availa	ble on Sp			0.00					
0-10 V DC 0-15 V DC	701-3107 701-3108	6.38 6.38	5.10 5.10	4.25 4.25	3.65 3.65	701-5107 701-5108	4.93 4.93	3.94 3.94	3.29	2.82 2.82	701-8107 701-8108	5.00	4.00	3.34	2.86 2.86	701-7108	7.03	5.62	4.69	4.01
0-25 V DC - 0-150 V DC			pecial Oro			701-5109 701-5115	5.25 5.25	4.20 4.20	3.51 3.51	3.00 3.00	701-8109	5.70	4.56	3.81	3.26	701-7109 701-7115	7.43 7.05	5.94 6.12	4.96 5.11	4.24

AC VOLTMETERS. AMMETERS AND MILLIAMMETERS

0-10 V AC	Avail	able on S	necial O	der Only							701-8403	7.30	5.84	4.88	4.17					
0-15 V AC	701-3404	7.20	5.76	4.81	4.12	701-5404	7.15	5.72	4.78	4.09	701-8404	7.30	5.84	4.88	4.17					
0-150 V AC	701-3406	7.35	5.88	4.91	4.20	701-5406	7.15	5.72	4.78	4.09	701-8406	7.43	5.94	4.96	4.25	701-7406	8.78	7.02	5.86	5.01
0-1 A AC											701-8501	7.15	5.72	4.78	4.09					
0-5 A AC						701-5502	6.43	5.14	4.29	3.68	701-8503	7.15	5.72	4.78	4.09					
0-10 A AC	••••		••••			701-5503	6.43	5.14	4.29	3.68	701-8504	7.15	5.72	4.78	4.09					
0-500 mA AC								ecial Ord			701-8605	7.43	5.94	4.96	4.25					

PRECISION PANEL METERS DEEP D'Arsonval Movement Scales

Perfect for Hobbyists

Most popular types for builders, experimenters and hobbyists. Long lasting, dependable construction. Clear plastic wraparound cover for wide-angle viewing. D'Arsonval movement with jeweled bearing. Linear dial scale. Available in two current ranges. Also available in VU type. Requires 1%" mounting hole. Size 2% x 2½ x 1½".

- Ideal for Compact Chassis
- Many Hi-Fi and CB Uses
- 1%6" Mounting Hole
- + 2% Accuracy

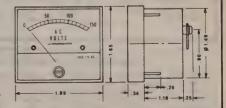
Inexpensive yet highly dependable and accurate, miniature-size panel meters for virtually unlimited applications in Hi-Fi, CB and general experimental projects. Easy to read scales. Modern design to enhance any installation. Measures just 1^{13}_{16} x 1^{13}_{16} x 1^{13}_{16} x 1^{13}_{16} x 1^{13}_{16} x 1^{13}_{16} x equires 1^{13}_{16} x nounting hole. Better than $\pm 2^{3}$ accuracy. Av. shpg. wt: 8 oz.

Stock No.	Mfr's Type	Range	EACH
910-4516	22-016	0-150 VAC	5.95
910-4517	22-017	0-50 µA, DC	6.95
910-4518	22-018	0-1 mA, DC	5.95
910-4519	22-019	VU Meter*	6.95
910-4654	22-036	0-15 VDC	5.95

MICRONTA® MINIATURE-SIZE PANEL METERS

- Experimental Project Applications
- Perfect for Hobbyists





(*) Scales: -20 to +3, 0-100%.

Description	Page	Description	Page		Page	Description
Ammeter		Simpson	. 258	Sencore	267	Sencore 268
Simpson	265	Ohmmeters		Sound Level Meters		TCG/Darco
Triplett	263	Simpson	. 266	Radio Shack, Scott,		Tube Testers
Battery Tester		Oscilloscope Camera		Simpson, Triplett	272	Eico, Sencore
Radio Shack	261	Polaroid	275	Tachometers		VOMS and Multimeters
Capacitance Testers		Oscilloscopes		Power Instruments	258	B&K
B&K. Clarostat, Comeli-Du	bilier,	Eico, Sencore, Simpson	. 274	Temperature Testers		Honeywell
Radio Shack, RCA, Spragu	e 276	Power Supplies		and Controllers		Radio Shack 259, 261,
Eico		BAK	. 259	Amprobe	272	RCA 261,
Sencore		Radio Shack	. 261	Simpson 265,	272	Sencore
Simpson		RCA	. 269	Waynco	278	Simpson 259, 264, 265, 267,
Chart Recorders		Sencore	. 267	Test Probes		Triplett 263, 266,
Allied, Rustrak, Simpson.	277	Pyrometers		Kurz-Kasch	269	VTVMs
Clamp-on Meters		API	. 272	Pomona	260	Eico
Amprobe, Mura	269	Signal Generators		Transistor Testers		Lectrotech
Simpson		B&K	259	B&K, Radio Shack, RCA	271	RCA
Frequency Counters, Meters		Eico, Radio Shack 271	. 273	Eico 271	273	Simpson
IRT Counters, meters	271	RCA 273		Kurz-Kasch		Triplett

MODEL 2726 SIX DIGIT FREQUENCY COUNTER

Provides numerical display of average frequencies from 5 Hz to 32 MHz. Also measures time intervals, period and frequency ratio; totalizes pulses over a standard time range. Automatic overrange capability allows as much as nine-digit resolution. Front panel switch selects 7 time bases from 0.1 msec. to 10 seconds, precisely controlled by internal crystal-controlled clock. Display time is adjustable from approximately 5 displays per second to "hold." which can be held indefinitely. All functions are controlled at front panel, including manual stop/start control and self-testing circuitry. Single switch selects all functions; no plug-in adapters needed. A second switch selects the six time bases/frequency ranges. Readouts include decimal point.
Readouts are cold-gas glow tubes. Accuracy is within ±0.001%, ±1 digit, over temperature range of +15°C to +55°C. Solid-state design with monolithic IC's. Single PC board allows easy access to test points. Baffle and filter minimize reflections for most effective digital display. 115/230 V, 50/60 Hz. Shpg. wt. 8 lbs. 919-2726. 1-3.... Each 594.94

4-Up.....Each 475.00

STROBOSCOPE-TACHOMETER

SPECIFICATIONS
Frequency Range: 5 Hz to 32 MHz in 6 ranges. Period Range: Single period, 100 µsec to 0.2 sec. Multiple period, 100 nsec to 0.2 sec. Frequency Ratio: Single 1 to 1.999999x104 Multiple, 0.001 to 1.999999x106. Time Interval: 100 µsec to 1.999999x106 sec. Totalization: 0.0 to 1.999999x106 counts. Time Base: 0.00001, 0.0001, 0.001, 0.01, 0.1, 1.0, and 10.0 seconds. Input Sensitivity: Channel A, 0.1 V rms maximum. Channel B, 0.1 V rms. 200 Hz to 2 MHz; 0.3 V rms 5 Hz to 200 Hz. Input Impedance: Channel A, 1 megohm shunted by 30 pF. Channel B, 500k chms shunted by 30 pF. Maximum Input Voltage: 230 V rms on 0.1 to 1.0 volt range.

2725A FIVE DIGIT FREQUENCY COUNTER
Same as above, but five-digit display. Maximum Readings: Frequency Ratio, 1 to 1.9999x105; Time Interval, 100 µsec to 1.9999x105; Totalization, 0 to 1.9999x105. Shpg. wt. 8 lbs. 919U2725. 1-3.... Each 532.31 4-Up.... Each 425.00

Measures Frequency, Time Intervals, Period and Frequency Ratio

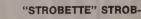


TACHOMETERS, STROBES AND PICKUPS



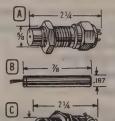
- Features Separate Stroboscope Lamp
- Five Ranges from 100 to 120,000 RPM
- Has 6-In. Taut Band Meter

MODEL 832. A highly accurate strobe with separate connected lamp. Features five speed ranges: 100-1200, 2400, 24,000 and 120,000 rpm. Has 6-in. taut band meter readout, mirror back scale, 1/2 of 1% of scale accuracy on all ranges. Recorder output, 0.050 V. Field calibration on all scales through divider from line frequency. All solid state. Strobe is Xenon 6500°K color, flashtube No. 10-12. Ranges: 100 to 12,000 (oscillator control on back of lamp or external control); 24,000 +2; 120,000÷10. External control only. Flash duration, 8-10 μ sec., 25 watt seconds per flash. Flash control by input accepting any P.1. photo or magnetic pickup, .10 to 15 V signal or contactor. Size, 7% x 13½ x 7". Shpg. wt. 24 lbs. 894-0832Each 461.75









MAGNETIC AND PHOTO PICKUPS

Model 892-120-SXT Magnetic. Generates pulse when ferrous object moves past center probe. Epoxy potted brass case. 120-ohm coil. Output with .005" gap is about 40V p-p at 1000"/second into 100k load.

C 314 Second into 100k sod. 894-0832. Includes 10-32 pin. Shpg. wt. 1 lb... Each 16.36 B Model 923-200-SXT-6 Magnetic. 12 V p.p. at 1000"/ sec. .187" dia. x 76" stainless steel; two 6" leads. 894-2923. Wt. 3 oz. Each 13.00 amplifier, 8" shielded cable. Up to 500,000 events/ minute. Output to 8 V p-p. Requires 5.5 VDC at 200 mA, 894-2936. Shpg. wt. 2 lbc.

PORTABLE PHOTO TACHOMETER

Case Optional



273

260 262 270

270

410 PORTABLE PHOTO TACHOMETER

Contactless speed measurement. Battery operated. Four ranges. Measures speeds up to 50,000 rpm. ±2% of full scale accuracy. Core magnet movement with spring loaded pivot suspension. Ranges: 1500-5000-15,000-50,000. Input Resistance: Greater than or equal to 10k ohms. Operating Temperature: 0 to 40°C. Supply Voltage: Indicating instrument, one battery. Pick-up Head, two 1.5V batteries. Dimensions: Indicating Instruments. ions: Indicating Instru-ment, 3.6 x 5.98 x 1.77". Pick-up Head, 1.42 x 8.0 x 1.9". Weight: 9 lb. and .7 lb. Complete with batter-ies, case and instruction manual



MAGNETICALLY ACTUATED REED PROXIMITY SWITCH

Model 5802. SPDT Form C suitable for either AC or DC loads. Will switch up to ¼ amp. Hermetic seal for safety in hazardous environments. Immune to dust, dirt and corrosive atmospheres. Contact rating: 250 amp, max. AC or DC. Breakdown voltage: 200 VDC, min.

Use with Type 5701 Magnetic Actuator.

Stock	Mfr's	Description			EACH		
No.	Туре		1-9	10-24	25-49	50-99	100-Up
807-5802 807-5701	5802 5701	SPDT Switch Magnet	10.37 2.79	7.75 2.00	7.00 1.80	6.20 1.60	5.35 1.40





Test Equipment

DIGITAL TEST EQUIPMENT

PORTABLE DIGITAL VOM



SPECIFICATIONS

Display: Numerical: 3½ digits, 7-segment, 0.33-in. high LED type, non-blinking with storage. Conversion Rate: 5 readings per second. Overrange Indication: Auto beyond 1999, lower half of 1" digit flashing. Polarity: automatic. Analog Indicator: Scans nulls and peaks. Temperature: 0°C-50°C. Power Supply: 117 VAC or 4 nickel-cadmium ("C" size rechargeable cells. Size: 7.2x5.4x3.75". Wt.: 4.5 lbs.

Model 360. Has 3½ digit, non-blinking, auto-polarity 0.33" LED display. 29 ranges. Measures conventional and low-power ohmic resistance. Features analog indicator useful for scanning of nulls and peaks and analog output signal that permits interfacing with chart recorders. Solid-state IC design. Up-down integration analog/digital conversion assures superior stability, accuracy and noise immunity.

Ranges: DCV: 0-199.9 mV (100 meg), 0-1.999 V (100 meg), 0-1.999 W (1000 meg), 0-1.999-199.

PORTABLE READOUT DIGITAL VOM

Model 460. High accuracy multiple range meter. Combines the advantages of high accuracy, multiple range testing non-blinking digital numerical display and front-panel analog meter readout. Self-contained battery or line operation makes it ideal for field assignments or lab situations where line power is not available or causes interference. Automatically recharges the batteries whenever line operated. Battery operation substantially extends common mode rejection. Numerals are formed by positive seven-segment build-up. Automatic plus or minus and overrange indication.

Analog meter readout shows peaks or nulls at a glance, tells test area indicated and test battery condition. Ranges: (Maximum Readings): AC, DC Volts, 199,9 mV; 1.999, 19.99, 1999,

Metal case. Size 4x8½x5½". For 115V, 50/60/400 Hz or 4 nickel-cadmium "D" batteries (makes compact VOM really portable). Batteries not supplied with unit. Ideal for field work and a wide range of industrial and institutional applications. 919-0460. Ea. 461.76 4-Up...Ea. 395.00



3½ DIGIT DIGITAL MULTIMETER

Model 282. For easy-to-read, accurate multimeter readings. Large, bright, non-blinking, 7-segment, flat 3½ digit display. All solid-state, high-resolution digital VOM. 100% overrange capability on all ranges. Positive out-of-range indication. Also has automatic polarity and automatic decimal point positioning. On DC readings a — appears before the numerical display when the voltage is negative. Advance voltage-to-frequency (analog-to-digital) converter assures exceptional, long term stability. Automatically positioned decimal point. O megohms input impedance on AC and DC volts.

Allied Exclusive! A DVOM Priced Under \$100 (4-Up)



MICRONTA DIGITAL VOM

Automatic Blanking

- 1 Megohm Input Impedance
 3 ½" Digit, .3 LED's
 25 Hz To 10k Hz Freq.

- Private Labeling Available

Model 22-200. A highly versatile, extremely accurate portable digital VOM. 3 digit, 0.3" high LED's, 3½ digits in overrange for easy readability. Automatic blanking to conserve battery life. 5 readings per second sample rate. 75% overrange (within maximum input limits), Lamp indicator for overrange and out-of-range. 1 megohm input impedance on all ranges. 25Hz to 10kHz AC frequency response. Internal mercury cell for calibration reference. Dual slope, analog to digital converter. Operates from 115V, 60 Hz AC or 9 "AA" penlight rechargeable or non-rechargeable batteries. 240V and 50 Hz AC options at extra cost. We can private label this DVM with your company logo (1000 piece minimum). Call Allied for details and quantity prices.

Ranges: DC Volts: 0-1, 0-10, 0-100, 0-1000.

1% accuracy, ± 1 digit. AC Volts: 0-1, 0-10, 0-1000, 0-1000.

1½% accuracy, ± 1 digit. AC Volts: 0-1, 0-10, 0-100, 0-100 mA, 0-1A.

1½% accuracy, ± 1 digit. AC Current: 0-1 and 0-100 mA, 0-1A.

2% accuracy, ± 1 digit. Resistance: 0-100 ohms, 1K, 10K, 1 Megohm. 2% accuracy, ± 1 digit.

910-4671. 1-3 Ea. 119.95

4-Up Ea. 99.95

NEW! 123/4

MODEL E310B SINE/SQUARE **WAVE GENERATOR**

WAVE GENERATOR

Model E310B. All solid-state circuitry includes FET in oscillator, silicon transistors and zener-regulated power supply. Fully shielded, no signal spill over to other equipment. Large, easy to read 5" dial scale with 12 to 1 gear ratio drive, makes it easy to obtain and repeat the results you want. Handsome case and panel for professional appearance. Solid state dependability makes this instrument an investment that will pay off a long, long time. Continuously variable output control plus 6 step attenuator for precise voltage division, both sine and square wave. Fast sine wave rise time, less than 100 nonoseconds. Frequency Calibration Accuracy: ±3%. 3-wire grounded AC line cord.

Sine Wave. Freq. Range: 20 Hz to 2 MHz in 5 decade ranges: 20-200 Hz, 200 Hz to 2 KHz, 2-20 KHz, 20-200 KHz, 200 KHz to 2 MHz. Output: 0-8 volts RMS into high impedance loads; 0-7 volts RMS into 600 chms; ±2 db. Distortion: 0.25% typical; 0.5% max. (100 Hz to 2 MHz); 1% below 100 Hz.

Square Wave. Freq. Range: 20 Hz to 200 KHz in 4 ranges; 20-200 Hz, 200 Hz to 2 KHz, 2-20 KH, 20 KHz to 200 KHz. Rise Time: less than 100 nanoseconds at 20 KHz. Symmetry: Balanced within 5% or less.

Power Requirements: 100-130 VAC, 50/60 Hz, 15 watts. Size: $12\sqrt[3]{4} \times 7\sqrt[1]{4} \times 8^{\prime\prime}$. $9\sqrt[1]{2}$ lbs. 731-0310 Each 153.00

TEST EQUIPMENT FOR LAB OR SHOP

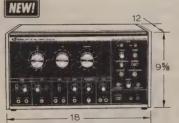


RF SIGNAL GENERATOR

RF SIGNAL GENERATOR

Model E-200D. Solid state, 100% silicon
transistor circuitry and zener-regulated
power supply. Six individually shielded
step attenuators plus a variable fine output level control with calibrated meter,
provide widest range of outputs with known
signal levels. Full shielding eliminates
spurious radiation even at outputs of 1
μV. Accuracy of better than 0.1% possible
with internal crystal calibration. Has 200microamp D'Arsonval meter for accurate
monitoring and setting of RF carrier and
modulation levels. Crystal calibrator provides -audible zero beat through built-in
speaker. Covers full VHF TV range, can
be used as crystal-calibrated marker, 100
KHz to 54 MHz on fundamentals and 54216 MHz on harmonics. 3-wire grounded
AC line cord. Excellent aid in receiver
alignment and trouble-shooting.
Frequency Range: 54 to 216 MHz on har-

Frequency Range: 54 to 216 MHz on harmonics, 100 KHz to 54 MHz in 5 fundamental bands. Band A — 300-370 KHz 3 volts output, Band B: 370-1400 KHz 2 volts output, Band C: 1.4 - 5.1 MHz 0.6 volts output, Band D: 5.1 - 16 MHz 0.3 volts output, Band E: 16 - 54 MHz 0.3 volts output, Band E: 16 - 54 MHz 0.3 volts output.



TELEVISION ANALYST

TELEVISION ANALYST

Model 1077B. Checks every stage of b & w
and color TV receivers from anienna input
to grid of CRT. Versatile TV service instrument cuts service time in half. Inject
signal anywhere in TV set and view results
on TV picture tube. You can quickly pinpoint stage where trouble originates. Heart
of 1077B is scanner, which modulates RF
and IF generators. Uses slides of standard
test patterns which are supplied. Duplicates all signals normally transmitted by
TV stations as well as those produced
within TV receiver. Since scanner will reproduce any slide source it can be used in
closed circuit TV systems for video paging;
in store window or sales floor display promotions. You can make your own slides.
Can also be used to check performance
of community and master antenna systems. of community and master antenna systems

Outputs Include: IF: 20 to 48 MHz; 0-70.000 microvolts min, at 75 ohms. VHF: Channels 2 to 6: 0 to 12,000 microvolts min. at 75 ohms. Chanels 7 to 13: 0 to 6000 microvolts min. at 75 ohms. Chanels 7 to 13: 0 to 6000 microvolts min. at 75 ohms. UHF: Channels 14 to 83: 0 to 1000 microvolts min. at 75 ohms. Video: Composite signal, 0 to 2.5 volts peak to peak min. at 1000 ohms, positive or negative polarity. Sync: 0-50 volts, peak to peak, continuously variable polarity. Output impedance, 10K ohms @ 50V; 1K ohms @10V.





LABORATORY POWER SUPPLIES

Fail-safe overload protection automatically shuts power supply down whenever current exceeds preset level. Output voltage is continuously variable and adjustment of output level is extremely simple. Select one of two meter scales and then adjust variable control until voltmeter reads desired voltage output. Permits setting output to precise required level quickly and easily for testing units over wide supply voltage range. SET/RESET combination Current Limit pushbutton simplifies setting current limit and resetting after overload. Standby switch disconnects load for safe quick adjustment without disturbing voltage or current settings. On/Off switch combined with voltage output control assures zero output voltage when power supply is turned On. With leads and instruction manual. 14½ x 3½ x 10″. 11 lbs.

Model 1601. Output Voltage: 0-50 VDC, Fail-safe overload protection automatically

Model 1601. Output Voltage: 0-50 VDC, continuously variable. Two ranges: 0-25 and 0-50 VDC. Output Current: 0-2 amps. Four ranges: 0-50 mA, 0-0.2 amps, 0-0.5 amps, 0-2 amps. Power Requirements: 105-125 VAC, 60 Hz.

731-1601 Each 175.00

Model 1602. Similar to Model 1601 with additional control to set bias voltage, different meter ranges, no coarse current range set and has additional terminals. Output Voltage: 0-400 VDC, continuously variable. Output Current: 0-200 mA. Bias Supply: Output Voltage: 0-100 VDC continuously variable (floating). Output Current: 0-2 mA. 731-1602 Each 185.00

ALLIED • 259

Digital Test Equipment

MODEL 500 DIGITEST DIGITAL MULTIMETER



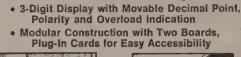
PUSHBUTTON OPERATION

Three digit display has moving decimal; overload indication



ADVANCED **FEATURES**

Dual-in-line 16-pin MOS IC; modular design



• Pushbutton Selection of 17 Ranges



COMPACT VERSATILITY

Operates from AC or batteries-including car battery



PUSHBUTTON RANGES

5 voltage ranges, 1 AC/DC current range; 5 resistance ranges

Solid-state multimeter powered by 117 VAC line or an external 12 V source. Weighs just 21/2 lbs., only 27/6 x5x9"—fits easily in briefcase or coat pocket. Six range pushbuttons on the front and four function buttons on the side for simple selection of 17 ranges. Has five AC voltage ranges from 50 mV to 300 V and one 50 μ A AC current range with a broad frequency response, constant 2-megohm input impedance and 10 pF capacitance. Five DC voltage ranges, 50 mV to 500 V, and one 50 μ A DC current range with floating differential input and 50-megohm impedance. Five resistance ranges, 50 ohms to 500k. Attractive scuff-proof, vinyl-clad plastic case has form-fitted retractable aluminum handle. 734-1000. Shpg. wt. 3 lbs...... Each 215.00

OPERATION AND SPECIFICATIONS

Operation: input signals are routed through one or more of the signal conditioning circuits—the attenuator, amplifier, AC-DC converter and constant current generator. The analog-to-digital converter digitizes the conditioned signal once each second. Digital value is stored and displayed until the next reading cycle. AC or Battery Power: low current requirements assure several hours of external battery supply life without recharging. Overload Protection: prevents damage to internal circuits by accidental application of excessive voltage. Floating Differential Input: permits measurement of voltage of either polarity. Calibration Check: input on rear includes reference source point. Common Mode Rejection: 100 dB at 60 Hz. Normal Mode Rejection: 30 dB at 60 Hz. Response Time: 5 seconds max. on AC ranges, 2 seconds max. on DC. AC Bandwidth: 40 Hz to 10 kHz over 300 V, 40 Hz to 2 kHz. Operating Temp. 0–50°C. ambient. Resolution: 0.1% of full scale, all ranges. Temp. Coefficient: A/D converter, $\pm 4 \times 10^{-4}$ °C; refer. voltage, $\pm 1.5 \times 10^{-4}$ °C. Input Power: 12.5 VDC battery (external) or 117 VAC ($\pm 10\%$), 50-60 Hz.

RANGES

RANGESDC Voltage (accuracy, $\pm 0.2\%$ of reading $\pm 0.2\%$ of range): 0-50 mV (2 megohm input, 100V protection); 0-500 mV (50 megohm, 500 V); 0-5 V (5 megohm, 1000 V); 0-50 V (5 megohm, 1000 V); all 100% overrange. DC Current (accuracy, $\pm 1\%$ of range): 0-50 μ A with 100 mV voltage drop, 100% overrange, 2.5 mA protection. AC Voltage (accuracy, $\pm 0.5\%$ of reading $\pm 0.5\%$ of range): 0-50 mV (2 meg/10 pF input, protected to 100 V); 0-500 mV (2 meg/10pF, 100 V); 0-5 V (2 meg/10 pF, 420 V); 0-50 V (2 meg/10 pF, 420 V); all 100% overrange except 0-300 V, 40%. AC Current (accuracy, $\pm 1.5\%$ of range): 0-50 μ A with 100 mV voltage drop, protection to 2.5 mA, 100% overrange. Resistance (accuracy, $\pm 0.5\%$ of reading $\pm 0.5\%$ of range): 0-50 ohms with 1 mA Rx; 0-500 ohms with 1 mA; 0-500k with 1 μ A; all resistance ranges with protection from -400 to +50 V, 100% overrange.

DC POWER PACK

Rechargeable battery pack for Model 500 multimeter provides 4 hours of continuous operation; charges overnight. Extends the basic current range to 1 amp full scale. Uses 10 "C" size rechargeable nickel-cadmium batteries (order below). Power cable plugs into receptacle on meter. Output voltage: 12-13 VDC. For 120/230 V, 50/60 Hz AC. Size, 9%x5%x21/4". Each 45.00 737-0250. Ni-Cad Batteries Each 5.60



AC/DC CURRENT SHUNT KIT
Four shunts in values of 1 mA, 100 mA and 1 A; extend
basic current range of Model 500 to 1 amp full scale. In
GR-type connectors: insert between "O" & "input" jacks. 734-1002 Each 25.00

HIGH VOLTAGE PROBE CONNECTOR

Plastic molded connector with two wires for input connection of high voltage attenuator probes. Provides connection to Model 500 only; does not provide extension of the meter ranges.

734-1003 Each 10.00

TEST PROBE WITH BUILT-IN METER Rapid High Voltage Measurements • Sensitivity: 20,000 Ohms/Volt

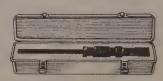
Unique test probes with built-in voltmeter for fastest measurements. Has alligator clip for grounding to chassis. No warm-up time required; no batteries needed. Has 50 μ A movement. Accuracy, $\pm 3\%$ full scale. Only 143/1 long. *With Type 3295 carrying case. †Indic, Multiplier resistance. Av. shpg. wt. 8 oz.

Stock	Mfr's	FS	1		EACH	
No.	Туре	٧.	Meg	1-9	10-49	50-Up
885-0664 885-0690 885-0695	4000 3157* 3163*	36,000 15,000 6,000	600 300 120	24.25 33.31 33.31	21.95 29.95 29.95	19.95 26.95 26.95

HIGH-VOLTAGE TEST PROBES



MODEL 3295 CARRYING CASE



A quality-built carrying case especially designed for pro-A quanty-bunt carrying case especially designed to protection of high voltage probes listed on this page. Constructed of tough, shatterproof thermoplastic. The inside is lined with shock-absorbing material. Wt. 1 lb. 885-0770. 1-3......Each 8.50 4-Up......Each 5.95



Shielded Movement

Just ground the test probe by attaching alligator clip to chassis, contact test probe tip to high voltage and read voltage from built-in meter. Sensitivity, 2000 ohms/volt (500 µA) movement. Accuracy, $\pm 3\%$, 30 Hz to 1000 Hz. Multiplier resistance, 20 meg. Length, 14¾". Model 3295 carrying case included. Shpg. wt. 8 oz.

Stock	Mfr's	FS		EACH		
No.	Туре	VAC	1-9	10-49	50-Up	
85-0750	3200	10,000	33.31	29.95	26.95	

100.000 OHMS/VOLT MULTITESTER

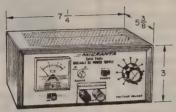
- Double Jeweled 4" Meter
- Meter Protection Circuit
- Reverse Polarity Switch



Type 22-205. 27 ranges. Double jeweled D'Arsonval 4" meter. Mirrored scale eliminates parallax for more precise readings. Meter protection circuit prevents overload damage. Reverse polarity switch. Carrying nandle doubles as tilt stand for workbench. Ranges: DC Volts: 0-0.5-2.5-10-250-1000 at 100k ohms/volt. AC Volts: 0-5-10-50-250-1000 at 10k ohms/volt. DC Current: 0-10 μA, 500μA, 5-50-500 mA, 10 A. Resistance: 0-10 μA, 500μA, 5-50-500 mA, 20 to +62 in 5 ranges. Accuracy: ±3% DC, ±4% AC. Size: 8½x5½, k3¼". Supplied with leads, batteries and instructions. Each 44.95 110-4665

VARIABLE DC POWER SUPPLY

- 0-24 Volts at 1 Amp
- Dual Function Panel Meter
- Variable Output



Type 22-126. This variable DC power supply provides a continuously variable output from 0-24 Volts DC at 1 amp. Features a dual-voltage range selector for 0-12 and 12-24 volts. Requires 120 VAC input at 60 Hz. Will provide a 1.0 amp constant output over antire voltage range with 1.5 amps surge. Also features an adjustable voltage control or added testing versatility. Equipped with built-in circuit breaker for extra protection of power supply circuitry. Attractively housed in durable metal case. Size: 5% x 7¼ x 3″.

AC/DC CIRCUIT TESTER LIGHT

- Spots Defective Circuits Fast
- Two Voltage Ranges to Choose From



50.000 OHMS/VOLT MULTITESTER

- · "Range-Doubler" Circuit
- Overload Protected Meter
- Single Function Switch

Type 22-204. 43 ranges. Single knob function switch has OFF position. Carry handle doubles as tilt stand. 4" meter. Ranges: DC Volts: 0-250 mV, 2.5-10-50-250-1000 at 50k ohms/volt; 0-125 mV, 1.25-5-25-125-500 at 25k ohms/volt. AC Volts: 0-10-50-250-1000 at 10k ohms/volt; 0-5-25-125-500 at 5000 ohms/volt. DC Current: 0-50 μA, 5-50-500 mA at 50k ohms/volt; 0-25 μA, 2.5-25-250 mA, 5A at 25k ohms/volt. Resistance: 0-2-20-200k-2-20 megs. Decibels: -20 to +62: in 8 ranges. Accuracy: ±3% DC, ±4% AC. Size: 61% x 4% x 2½". Supplied with leads, batteries and instructions. 910-4660

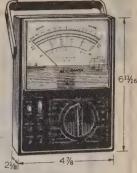


BATTERY TESTER

- Accepts Most Popular Size Batteries
- 2 Jeweled Meter Movement

Type 22-030. Accurately measures voltage under the load conditions of any flashlight or transistor radio battery. Tester will handle almost all popular size batteries. 2 jeweled meter movement with two, color-coded scales—Regular: REPLACE-GOOD; Mercury: REPLACE-GOOD. Single knob selector. Negative ground stud for quick checking. Five ranges: 1.5-6-6-15-22 volts. Size: 51/a x 11/6 x 31/2". Supplied with 18" test leads and instructions test leads and instructions.

910-4530 Each 11.95



UNIVERSAL AC ADAPTER

Fits Most Sets 4.5-6-7.5-9 Volts

- Save on Battery Costs
- Polarity Reversing Switch
- 300 mA Rating

Type 270-1531. Powers battery operated transistor radios, cassette recorders and walkie-talkies directly from any 120 VAC source. Can be used with nearly any set having external voltage jack. 3 output plugs: miniature, subminiature and power. 4 range voltage selector screw can be turned with coin or screwdriver. Input: 120 VAC at 60 Hz. Output: 4.5-6-7.5-9 volts at 300 mA. Six foot cord. U.L. listed Size: 234 x 2 x 11/2".

910-5220



NEW!

A WV-518A 20,000 OHMS/VOLT VOM

B WV-520A HIGH SENSITIVITY VOM

High sensitivity of 100k ohms/V DC, 10k ohms/V AC. Three-color meter, nirror scale, aluminum panel. Ranges: DC Voltage; 10 mV to 1500 V in 8 anges; AC rms Voltage: .01 to 1500 V in 6 ranges. DC current: .05 mA to 5 A n 6 ranges. Resistance: .5 to 20 megohms in 4 ranges. Decibels: -20 to +55.5 dB in 5 ranges. Accuracy: DC, ±3%; AC, ±4%. Test leads. 3½x ½x2½/2. Shpg. wt. 3 lbs.

© WV-519A 50,000 OHMS/VOLT VOM

Three-color aluminum panel. Three-color meter with mirror scale. DC polarity witch. Sensitivity: DC, 50K ohms/V; AC, 10K ohms/V. Ranges: DC Voltage: imV to 1200 V in 8 ranges. AC rms Voltage: .01 to 1200 V in 6 ranges. DC Current: 5μ A to 12 A in 5 ranges. Resistance: 1 ohm to 1 megohm in 4 ranges. Decibels: -20 to +57 dB in 5 ranges. With 22.5 and 1.5 V batterles, leads. Accuracy: DC, $\pm 3\%$; AC, $\pm 4\%$. 4%. x6%. x17%. Shpg. wt. 2 ibs. 101-4719. 1-3. Each 49.26

D WV-517A COMPACT 20,000 OHMS/VOLT VOM

"BLUE LINE" **VOLT-OHM-MILLIAMMETERS**

FOR SERVICEMAN. **TECHNICIAN OR HOBBYIST**

- Zener Diode Meter Protection
- Precision Resistors for All Ranges
- Attractive Dark Blue Cases
- . Models to Meet Any Range or Sensitivity Requirements
- . Temp. Compensated







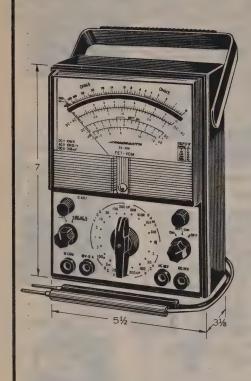




Allied® Test Instruments

MICRONTA® PRECISION-CRAFTED MULTITESTERS

TEST GEAR



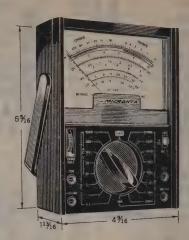
FIELD EFFECT PORTABLE VOM

Ranges

- FET DC input—10 Megs
- 1% Precision Resistors
- Burnout Protected
- 4½" Mirrored Scale

Model 22-206. The accuracy and high input impedance of a VTVM now in a portable FET VOM. Ultra-sensitive 40µA meter with "Double Overload Protection". Protection" to guard against burnout. Mirrored scales eliminate error-causing parallax. Calibrate adjust button for exact readings on all ranges. Also features polarity reverse switch, zero adjust and a single-knob range selector.

Ranges: DC Volts, 0-2.5-10-50-250-1000 at 10,000 ohms/volt. AC Volts, 2.5-10-50-250-1000 at 45 ohms/volt. DC Current; 0-25#A, 2.5-25-250 mA. Resistance; Rx1, Rx10, Rx1000, Rx1000, Rx100,000 (10 center scale). Decibels, -20 to +62 in 5 ranges. Accuracy: ±3% DC, ±4% AC. Size: 7x5½ x3½ ". Comes complete with test leads, batteries and complete instructions. 910-4670. FET VOM..... Each 59.95



30,000 OHMS/VOLT **MULTI-**TESTER

- 27 Ranges—Single Knob Control
- Three-Color 4" Mirrored Scale
- Polarity Reversal Switch

Model 22-203. Allied's own precision Micronta multitester features a 4" meter with three-color mirrored scale for easy, accurate readings at a glance. Polarity switch permits reversal without changing leads. Ranges: DC Volts, 0-0.3-1-3-10-30-100-1000 at 30,000 ohms/V sensitivity; AC Volts, 0-10-30-100-300-1000 at 10,000 ohms/V; DC Current, 0-100 μA, 0-3-30-300 mA; Resistance, 0-1k-10k-1 megohm-10 megohms; Decibels, —10 to +62 in five ranges. Output jack; ohms adjust control; zero adjust. Comes complete and ready to use with zero adjust. Comes complete and ready to use with test leads, batteries and easy-to-follow instructions. Size 6% x 4% x 11%. Shpg. wt. 4 lbs. 910-4549 Each 29.95

ECONOMY MICRONTA® MULTITESTERS THAT REALLY PERFORM!



Handy **Pocket** Size

895



Superb Quality-Low, Low Price



Precise and Compact



20,000 OHMS/VOLT 24-RANGE MULTITESTER

Easy to

and Use

Read

- Big Mirrored Scale
- With Battery and Leads

Model 22-202. Versatile and accu-Model 22-202. Versatile and accurate—has range switch with off position, easy-to-read scale, Ranges: DC Volts, 0-0.6-3-15-60-300-600 at 20,000 ohms/V sensitivity; AC Volts, 0-15-60-150-600-1200 at 10,000 ohms/V; DC Current, 0-60 µA, 0-3-30-300 mA; Resistance, 0-2k-20k-20k-2 megohms: Decibels —20 to +63. Outohms; Decibels, -20 to +63. Output jack. Zero adjust. Includes battery and test leads-ready for use in shop or field. 5%16 x 315/16 x 11/2". Shpg. wt. 1 lb. 910-4655 Each 21.95

1000 OHMS/VOLT POCKET **8-RANGE MULTITESTER**

- AC and DC Ranges
- 1% Precision Resistors

Model 22-027. Fits right in your pocket—has easy-to-read two-color 2" meter, pin jacks for all ranges, 1% resistors for accuracy. Perfect for shop, home or on-the-go. Ranges: AC/DC Volts, 0-15-150-1000 V; DC Current, 0-150 mA; Resistance, 0-100,000 ohms. Accuracy: ±3% full-scale on DC ranges, ±4% on AC ranges. Zero adjustment. Mirrored scale eliminates parallax. 3½ x2% x1¼" bakelite case. Comes with test leads, battery. Shpg. wt. 1 lb. 910-4527 Each 8.95

20,000 OHMS/VOLT **18-RANGE MULTITESTER**

- Off Position in Switch
- **Zero Adjust Control**

Model 22-201. Quality engineered meter at a fantastic low price! Meter has easy-to-read 3-color mirrored scale. Ranges: DC Volts, 0-5-25-125-500-1000 at 20,000 ohms/V; AC Volts, 0-10-50-250-1000 at 10,000 ohms/V; DC Current, 0-50 μ A, 0-250 mA; Resistance, 0-2k-20k-2 megohms; Decibels, —20 to +62. Overload protection circuit. Output jack, Accuracy: 3% except 500 and 1000 V ranges, 4%. With leads, battery. Overall size, 5x3½x1¾". Wt. 1 lb. 910-4546 Each 15.95



25-RANGE MULTITESTER

- 3-Color Mirrored Scale With Battery and Leads

Model 22-028. Feature-packed tester has range switch with "off" position, 3-color meter for easy and accurate readings. Ranges: DC Volts, 0-0.6-3-15-60-300-600-1200 at 20,000 ohms/V; AC Volts, 0-6-30-120-600-1200 at 10,000 ohms/V; DC Current, 0-60 \(\mu A, 0-3-30-300 \) mA; Resistance, 0-5k-50k-50k-5 megohms; Decibels, -20 to \(\dagger 463 \) in five ranges. Output jack. Zero adjust. With test leads, battery, instructions. Overall size, 5x3\% x 1\/2". Shpg. wt. 1 lb.

910-4522 Each 20.95

262 • **ALLIED**



components from overload damage. Sensitivity: 20,000 ohms/volt DC, 5000 ohms/volt AC. Accuracy: ±2% on DC, ±3% on AC. DC volts: 0-2.5-10-50-250-1000-5000 (5000 ohms/volt). AC volts: 0-3-10-50-250-1000-5000 (5000 ohms/volt). dB: -20 to +75 in 7 ranges. DC current: 0-100 <u>MA</u> (250 mV); 0-10-100-1000 mA (250 mV); 0-10 amps (250 mV). Ohms: 0-1000-10,000 (4.4-44 at center scale). 0-1-100 megs (4400-440k at center scale); 0-1-100 megs (4400-440k at center scale). Output volts: 0-3-10-50-250-1000 (5000 ohms/volt), 7½x5½x3½y²/. With test leads, batteries. Shpg. wt. 5 ibs. 956-5633-Each 139.00 4-Up. Each 119.00

630-APLK LAB-TYPE VOM
Same as 630-PLK, with ½% resistors for greater accuracy, and ½" mirror scale.
Accuracy is ±1½% DC, ±3% AC. With leads, alligator clips, batteries. 5 lbs. 956-5636. Each 150.80 4-Up. Each 129.00

630-APL TYPE 3 VOM. As above, but ½% resistors for ±1½% accuracy DC, ±3% AC. Mirror scale. 956-5633. .Each 101.70 4-Up. .Each 87.00

VOM ACCESSORIES HV PROBE

Fully insulated 11%" probe with 48" leads. For use with 630, 630A-2, 631.

Stock		DC	EACH			
No.	Type	Volts	1-3	4-Up		
956-3700	T79-70	0-30,000	26.65	22.80		

CASES *Black cowhide case. †Black leather case.

Stock	Mfr's	For	EA	СН
No.	Type	Testers	1-3	4-Up
956-5662 956-5665	*639-P	630 Ser. 630 Ser.	26.65	22.80
956-5670	1669-OS	666R	13.56	11.60

TYPE 611 LEADS. For model 10 AC-Ammeter Adapter (at right) when used with 630 Series (or with any VOM having a 3 volt AC scale at 5000 ohms per volt). Long lead attachment. 10 oz. 956-0611. Ea. 7.35 4-Up. Ea. 5.88

MODEL 369 LEATHER CASE

Black case for 310, 310-C and 310 FET. Trouser belt slips through loop on case. 1 lb. 956-5369, Ea. 9.45 4-Up., Ea. 7.56

MODEL 379 LEATHER CASE

For 310 and Model 10 clamp-on ror 310 and Model 10 Clamp-on ammeter combination. Has pocket for Model 101 line separator. Black leather, with strap. 1 lb. 956-5379. Ea. 11.92 4-Up. Ea. 10.20

REPLACEMENT LEADS

TYPE 79-153. For 310 and 310-C. Shpg. wt. 10 oz. 956-3727. Ea. 7.35 4-Up. Ea. 5.88

TYPE 311 LEAD. Allows separate use of Model 10 AC-Ammeter with Series 310 test equipment. 10 oz. 956-0311. Ea. 7.35 4-Up. Ea. 5.88



MODEL 630NA VOM

- 70 Ranges 11/2 % DC Accuracy
- Handy Mirror Scale and Diode Overload Protection

Single selector switch reduces chances of Single selector switch reduces chances of error in setting. Temperature and frequency compensation, usable with frequencies through 500 kHz. 5½" easy-to-read mirror scale with unbreakable window. Special diode protected meter, and fuse protection in ohmmeter circuit prevents overloading and burnouts. Rugged new suspension meter movement.

Accuracy: ±1½% DC, ±3% AC. Ranges: DC volts: 7 ranges to 6000 (10k per volt); 7 ranges to 3000 (20k/volt); 1 range to 0.1260 μA). (AC volts: 6 ranges to 6000 (5000 ohms/volt); 6 ranges to 3000 10k per volt). dB, -20 to +77 in 12 ranges. DC μαmps, 1 range to 120 (240 mV); 2 ranges to 600 (120 mV). DC mA:4 ranges to 1200 (240 mV); 3 ranges to 600 (120 mV). ranges to 600 (120 mV). Do IIIA.4 ranges to 1200 (240 mV); 3 ranges to 600 (120 mV). DC amps, 1 range to 12 (240 mV); 1 range to 6 (120 mV). Ohms, 3 ranges to 100k, 3 ranges to 100 megs. Leads, clips, batteries, 5 lbs.

956-5645. Ea. 126.25 4-Up...Ea. 108.00



- 200,000 Ohms/Volt DC Sensitivity
- **Rugged Construction with High** Sensitivity and Repeatability
- No Rolling Friction in Movement

Suspension meter movement has no pivots, bearings, hairsprings, etc. Extremely rugged. Special precision resistors are rigidly mounted. 20,000 ohms per volt for greater sensitivity on high resistance circuits. Input impedance is higher than on most VTVM's at 55 volts, DC and above. Accuracy is $\pm 1 \frac{1}{2} \%$ DC, and $\pm 3 \%$ AC.

Accuracy is $\pm 11/2$ % DC, and $\pm 3\%$ AC. Temperature compensated to 100 kHz. 20,000 ohms/volt AC sensitivity. Ranges: DC volts: 0-0.6-3-12-60-300-1200 at 100k ohms/volt. 0-0.3-1.5-6-30-150-600 at 200k ohms/volt, 0-0.150 at 60 μ A. AC volts; 0-3-12-60-300-1200 at 10k per volt: 0-1.5-6-30-150-600 at 20k. per volt. dB, -20 to +63 in 10 ranges. DC current: 0-5-60-120-600 μ A, and 0-1.2-6-12-600-120-600 μ A, and 0-1.2-6-12-600-1200-100k-1 meg-10 meg-100 meg. (4.4-44-440, etc. at center scale). Shipped complete with leads, clips, and batteries. 71/2x51/2x31/3x1/3x1/35 lbs. 956-5648. Ea. 149.63 4-Up.....Ea. 128.00



MODEL 630 VOM

- Single Selector Minimizes Chance of **Incorrect Settings and Burnouts**
- 5000 Ohms per Volt AC Sensitivity and 20,000 Ohms per Volt DC

and 20,000 Ohms per Volt DC

Features 20,000 DC, 5000 AC ohms/volts sensitivity. Single 20-position switch selects both circuit and range. Fuse-protected ohmmeter circuit prevents burnout. Spring-backed instrument jewels.

DC accuracy is ±2% on all ranges. AC response, 5 Hz to 50 kHz. Ranges: DC and AC volts; 0-3-12-60-300-1200-6000; DC current, 0-60 µA, 0-1.2-12-120 mA, 0-12 amps. Resistance, 0-1000-10,000 ohms and 0-1-100 megs. dB, -20 to +77 in 6 ranges; output volts, 0-3-12-60-300-1200. Jack with condenser in series with AC ranges. Sizes, 7½ x5½ x3½x½. Supplied complete with bateries, alligator clips, and test leads. Shpg. wt., 2 lbs.

956-5656. Ea. 84.17 4-Up.... Ea. 72.00 MODEL 630A-2 VOM. As above, but with ½% precision multiplier resistors for ±1½% accuracy on DC readings. 4½² mirrored accuracy on AC readings. 4½² mirrored scale. With leads, clips, and batteries. Shpg. wt., 5 lbs.

Shpg. wt., 5 lbs. 956-5630. Ea. 97.02 4-Up.....Ea. 83.00



MODEL 100 5-PIECE VOM/AC **AMMETER OUTFIT**

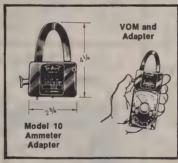
- 310 VOM Model 10 Ammeter
- Line Separator, Leads, Case

Save \$15.27 on this packaged miniature Save \$15.27 on this packaged miniature VOM outfit. Cost of items purchased separately is \$115.80. Outfit consists of: Model 310 pocket-size VOM; Model 10 clamp-on AC Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Carrying Case; Model 311 Lead Attachment for separating VOM and Adapter. VOM has 20,000 ohms/volt AC sensitivity, 5000 ohms/volt AC sensitivity, DC voltage ranges to 1200 volts in five ranges; current to 600 mA in four ranges; ohms to 20 mags in four ranges. megs in four ranges.

Clamp-on adapter converts 310 to amcramp-on agapter converts 310 to ammeter. Reads current in 6 steps. 101 separator increases ammeter sensitivity. Case holds 310 and 10 with pocket for 101 Line Separator. Descriptions at right. Wt. 7 lbs. 956-5101. Each 100.53 4-Up. Each 86.00

MODEL 100-C OUTFIT

As above, but with Model 310-C VOM. 15,000 ohms/volt AC sensitivity, 20,000 ohms/volt DC. AC and DC voltage ranges to 600 volts. Polarity reversing switch. Includes Model 10-C clamp-on AC Ammeter Adapter; Model 101 Line Separator; Model 317 Leather Carrying Case; Model 311 Lead Attachment for separating VOM and Adapter; 3 lbc. Adapter, 7 lbs. 956-5100 . Each 113.59 4-Up . Each 97.00



310-C MINIATURE VOM

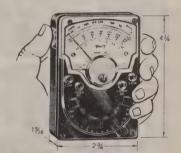
Similar to Model 310 at right, but with 600-volt ranges instead of 1200. Hand-size, with provision for attaching Model 100 clamp-on AC ammeter, below. Single, fully enclosed lever-range switch plus DC Tully enclosed lever-range switch plus DC polarity reversing switch. Sensitivity: 15,000 chms/volt on AC; 20,000 chms/volt DC. Accuracy: ±3% DC, ±4% AC. DC volts: 0-3-12-60-300-600 (20,000 chms/volt). AC volts: 0-3-12-60-300-600 (15,000 chms/volt). Ohms: 0-20k-200k. 0-2-20 chms/volt). Ohms: 0-20k-200k. 0-2-20 mA. 4½ x2¾x1¾a″. With leads, battery. Wtt. 2 lbs. 956-5310..Each 72.48 4-Up..Each 62.00

MODEL 10 AMMETER ADAPTER

Plugs into Model 310 or 310-FET to make a clamp-on AC ammeter. Can be used with any VOM with a 3-V AC scale at 5000 ohms/volt. Checks all line loads without breaking circuit. Six AC ranges 0-6-12-30-60-120-300 amps. Clips around single wire for direct reading. 4/4x1/4x31/4/1. 1b. 956-5011. Each 25.72 4-Up. Each 22.00 Model 10-C. As above, but for Model 310C VOM. 1 lb. 956-5010.. Each 25.72 4-Up.. Each 22.00

MODEL 101 LINE SEPARATOR

Plugs into AC outlet to divide two-conductor cord. Increases Model 10 sensitivity 10X and 20X, 0.3 to 30 amps, AC in 9 ranges. Shpg. wt. 1 lb. 956-5102. Each 14.70 4-Up... Each 9.00



310 MINIATURE VOM

310 MINIATURE VOM

Miniature VOM Is self-shielded, has spring-backed jewels for ruggedness. High-torque, bar-ring movement. Test prod fits into top for use as common probe, leaving one hand free. Accuracy: ±3% DC, ±4% AC. DC volts: 0-3-12-60-300-1200 (20,000 ohms/volt). AC volts: 0-3-12-60-300-1200 (5000 ohms/volt). Ohms: 0-20,000-200,000; 0-2-20 megs. DC current: 0-600 μA; 0-6-60-600 mA. Molded black case, 4/4 x 2/4 x 1 ½/6". With test leads, battery, manual. See Model 10 clamp-on AC ammeter adapter, left. Shpg. Wt. 2 lbs. 956-5312...Each 56.11 4-Up...Each 48.00

MODEL 666R **POCKET VOM**

- · Five AC and DC Voltage Ranges
- Three Resistance Ranges to 3 Meg.

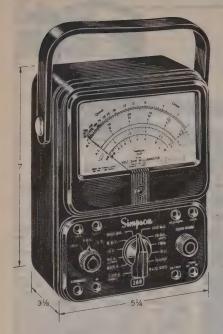


Handy tester for pocket or tool kit has single recessed selector switch. AC rectifier is calibrated and pre-adjusted for easy replacement. Accuracy: $\pm 3\%$ DC; $\pm 4\%$ AC. AC/DC sensitivity: 1000 ohms per volts. Ranges: DC and AC volts: 0-10-50-250-1000-5000. DC current: 0-10-100 mA; 0.1 amp. Ohms: 0-3000-300,000, 0-3 megs. Output volts: 0-10-50-250-1000. Size: 5%x 3%aX2%/%. With test leads, alligator clips and batteries. Shpg. wt. 3 lbs. 956-5666. Each 64.30 4-Up. Each 55.00 Handy tester for pocket or tool kit has

ALLIED • 263

World-Famous 260® Family of VOM's

CHOOSE THE FEATURES AND ACCURACIES TO MEET YOUR EXACT NEEDS



260® ORIGINAL VOM-THE INDUSTRY STANDARD

- External Access Fuse and Battery Compartment
- 0-1 VDC and 0-500 V Ranges
- Easy-to-Read 2-Color Scales
- Polarity Reversing Switch

Model 260-6. The original 260 VOM—precision made for dependable operation on the bench, or "on the go." Battery-operated portable is ideal for use wherever quick, accurate electrical checks must be made. Multi-purpose screw-on test leads have combination probe and alligator clips.

Features excellent linearity and stability. Modified full-wave bridge circuit gives accurate AC measurements. Precision movement is of shock-resistant taut-band construction for long life. Varistor-protected against meter overloads. Self-shielded movement cannot be affected by magnetic fields. Uses only two batteries—one 9-volt and one "D" cell. See complete electrical specifications on following page.

Handle also serves as a convenient stand for bench use. Takes optional "Add-A-Testers" below. With batteries, test leads, operating manual. Size, 7x51/4x31/6". Shpg. wt. 5 lbs.

Basic Model 260-6. As described above. 919-0253.....Each 87.09 4-Up.....Each 74.50

Model 260-6RT. Same features as above but with roll-top protective case. 919-0257.......Each 97.03 4-Up.....Each 83.00

Model 260-6M. Same features as 260-6 but with mirrored dial to eliminate possible parallax errors in the readings. 919-0254..... Each 90.60 4-Up..... Each 77.50

260-6MRT. Same features as 260-6 but with roll-top case and mirrored dial. 919-0255.... Each 100.53 4-Up.... Each 86.00



OVERLOAD PROTECTED

- Circuit Breaker Reset Button Pops Out to Indicate Overload
- **Taut Band Meter Movement**
- Polarity Reversing Switch

Model 260-6P. Highly versatile meter features overload protection that's particularly valuable where the instrument may be used by inexperienced students or operators new on the job. Reset button on built-in circuit breaker pops out indicating overload to protect circuits. Button cannot be reset while overload remains present mains present.



EXTRA-ACCURATE VOM

- Protected Taut-Band Movement
- Temperature Compensated Anti-Parallax Mirror Scale
- Special Calibration Circuit

Model 270-4. In addition to all the features and ranges of the 260-6M, this instrument includes enough more to make it the most accurate VOM in the 260 series. Accuracy is ±1.25% DC, ±2% AC, ±1.5° of arc on Rx1, ±1° of arc on Rx10k. Complete specifications on following page, except as noted here.

Has mirror scale and knife edge pointer. Varistor-protected against meter overloads. Polarity reversing switch. With batteries, leads, manual. 7x5/4x3/4/". Shpg. wt. 5 lbs. 919-0270. ... Each 108.72 4-Up ... Each 93.00



FOR SOLID-STATE USE

- Low Loading on Current Ranges
- Special 0-50 mV DC Range
- Precision Taut-Band Movement
- Self-Shielded Meter

Self-Shielded Meter
 Model 250. Precision instrument is designed for testing solid-state circuitry and other low-voltage, low-current applications. Compact and rugged; provides quick and accurate electrical checks. Voltage drop on current ranges is just 50 mV; gives less circuit loading for testing conditions closer to actual operating conditions. Full specifications shown on following page.

Has 0-50 DC millipolts range offer-

COMPLETE SPECIFICATIONS FOR 260 SERIES ON NEXT PAGE



MODEL 261-2 HIGH ACCURACY VOM

Special Calibration Circuit
 Easy-to-Read Mirror Scale

• Easy-to-Read Mirror Scale
Features special calibration circuit for maintaining increased accuracy. Easy-to-read mirror scale and knife-edge pointer effectively end errors caused by parallax. Accuracy is ±1.5% on DC, ±3% on AC, ±2° of arc on Rx1, ±1.5° of arc on Rx100 and Rx10k ohms. Complete specifications are given on the following page, except as noted here.

Self-shielded annular movement is varistor-protected to withstand 200,000% overload. Carrying handle doubles as a convenient stand. Precision movement is of shock-resistant taut band construction for longer life. Supplied complete with batteries, test leads, and operator's manual. 7x5/xx31/8". Shpg. wt. 5 lbs. 919-0260.....Each 97.61 4-Up.....Each 83.50

MODEL 261-2RT WITH CASE

As above but with roll top protective case, 919-0261...Each 107.55 4-Up....Each 92.00



ACCESSORIES FOR 260 SERIES VOM'S



VERSATILE PLUG-IN "ADD-A-TESTER" ADAPTERS Eliminates the need for separate testers. Simply plug into any 260, 261, 270, 250, or 255 VOM on this and next page. (Except

those with roll top cases).) 4%x51/16x37/16. Av. wt. 2 lbs.	
919-0650. 650 Transistor Tester. Ico range, 0-100 µAEa. 57.87 4-Up	
919-0651. 651 DC VTVM. 0.5, 1.0, 2.5, 10, 25, 50, 100, 500 V ranges. Impedance, 10 megohmsEa. 64.30 4-UpEa. 55.00	>.
919-0652. 652 Temp. Tester50 to +250 F 2 ranges Ea. 64.30 4-Up	
919-0653. 653 Ammeter. 0.25 to 25A; 50 Hz-3kHz Ea. 40.92 4-Up Ea. 35.00	
919-0654. 654 Audio Wattmeter. 17 microwatts to 100 watts. Load ranges, 4, 8, 16, and 600 ohms Ea. 43.84 4-Up Ea. 37.50	3
919-0656. 656 Battery TesterEa. 38.58 4-UpEa. 33.00	



TEST LEADS AND PROBES

Use with any VOM shown on this and the next page.

919-0115. Type 00115. Combination probe tip leads with removable clips. Shpg. wt. 1 lb......Ea. 8.25 4-Up......Ea. 6.60

919-7500. Type 07500. Banana plugs, alligator clip leads, color-coded pair. Shpg. wt. 1 lb......Ea. 6.50 4-Up.....Ea. 5.20 919-0509, Type 00509. 30 kV DC probe. Wt. ½ lb......Ea. 23.50

CARRYING CASES

Fit any VOM on this and the next page. Shpg. wt. 2 lbs. 919-0805. Type 00805. Vinyl. Ea. 21.54 4-Up Ea. 19.35 919-1818. Type 01818. Leather . . . Ea. 17.86 4-Up Ea. 16.05

All 260® VOM's have 20,000 Ohms/Volt Sensitivity

- 1-Volt Plug-in Jack for Easy Transis-tor Measurements
- Recessed Switch
- Self-Shielded Taut-Band Movement



Type 2929 Plastic Carrying Case. Has space for VOM, test leads, probes. Shpg. wt. 2 lbs. 919-2929. 1-3...... Ea. 16.03 4-Up...... Ea. 14.40

VOM AND **TEMPERATURE TESTER**

- Range from 100° to 1050°F
- Full VOM Features



Model 255. Combination tester offers all the fine features of a VOM, plus the convenience of a temperature meter. Has thermocouple lead to measure temperatures between 100° and 1050°F. Also has 0-50 mV DC range and a low (50 mV) drop on current to aid in solid state testing and other high sensitivity applications.

MODEL 150 AMP-CLAMP CLAMP-ON AC AMMETER



- Measures AC Current Up To 300 Amps
- Attaches Easily to Most VOM's
- Voltage-Limiting Protects Meter Movement

Permits measuring AC currents up to 300 amps without opening the circuit. Simply clamp the unit onto the wire carrying the current to be tested. Increases the range and versatility of any VOM having a 2.5 or 3-volt scale. Offers AC current measurement in six ranges—5, 10, 25, 100 and 250 amps on a 2.5-volt scale; 6, 12, 30, 60, 120, 220, 300 A on a 3.0-volt scale. Using a VOM with 5,000 ohms per volt sensitivity, accuracy is $\pm 3\%$.

Has voltage-limiting zener diodes across output. Thumbwheel selector switch. Conversion chart in handle. Rugged high impact plastic case. Complete with 4-ft. meter leads and test plugs. Size, 7¾x3x 1½°. Shpg. wt. 1 lb. 919-0150. 1-3.....Ea. 35.07 4-Up.....Ea. 30.00

THE MODEL 150 CLAMP-ON AC AMMETER CAN BE USED WITH ANY VOM HAVING A 2.5 OR 3-VOLT SCALE. ALLIED CARRIES A FULL LINE OF SUITABLE VOM'S.

MODEL 265 INDUSTRIAL TYPE VOM

- AC and DC Current Ranges to 12 Amps
- Varistor Overload Protected
- Single Switch Operation



Rugged, self-shielding taut-band movement is temperature compensated. Separate, isolated AC current ranges let you set up simultaneous AV voltage and current measurement using two pairs of leads; simply select the AC Amps and AC Volts position alternately. Adjust-A-Vue handle doubles as a convenient stand. RANGES: DC volts, 0-0.3-3-12-60-300-600 with 20,000 ohms/volt sensitivity, ±2% F.S. accuracy; AC volts, 0-3-12-60-300-600 with 5000 ohms/volt sensitivity, ±3% accuracy; DC current, 0-60µA, 0-1.2-2-12-120 mA, 0-0.6-1.2-12 A with 250 mV max. voltage drop, ±2% accuracy; AC current, 0-120 mA, 0-1.2-12 A with ±3% accuracy; resistance, R x 1, R x 100, R x 1k and R x 10k with 12 ohm center. With test leads, batteries, manual. Size, 7x51/4x31/8/*. Wt. 5 lbs. 919-0265. 1-3.........Ea. 134.44

919-0265. 1-3......Ea. 134.44 4-Up.......Ea. 115.00

 5 kV Safety Probes. AC or DC type. Shpg. wt. ½ lb.

 919-0506. Type 00506. DC.....Ea. 8.25
 4-Up.....Ea. 6.60

 919-0505. Type 00505. AC.....Ea. 8.25
 4-Up.....Ea. 6.60

Type 00249 Roll Top Carrying Case, Shpg. wt. 2 lbs. 919-0248, 1-3............Ea. 16.32 4-Up..........Ea. 14.40

7" SCALE MICROAMMETER VOM'S

• 7" Mirror Scale Reduces Parallax Errors

Model 269-3. Sensitivity of 100k oms/volt AC. Shielded taut-band movement. Snap-out battery compartment. One switch selects all ranges: Fused input. Offers 33 ranges: DC current, 0-16-160 μA, 0-1.6-16-160 mA, 0-1.6-8 current, DC volts, 0-1.6-8-40-160-400-800-1600-4000; AC volts, 0-3-8-40-160-400-800; ohms, 0-2-200-20k-200k-2 meg-20 meg-20 meg; AF volts, 0-3-8-40-160; decibles (imW−600 ohms), −12 to +45.5 in 4 ranges. DC accuracy, ±2%; AC, ±3% full scale. Size, 6x8x3″. With leads, 4000 VDC probe, batts. Shpg. wt. 6 lbs. 919-0264. 1-3...Ea. 134.44 4-Up...Ea. 115.00

Model 262-3 DC/AC VOM. Overload protected. 33 ranges, 20k ohms/V DC, 5k ohms/V AC. 7 DC ranges, 0-4000 V; 6 AC ranges, 0-800 V. Two µA ranges, 2 amp ranges; 4 dB ranges, -12 to +45.5; 6 resis. ranges, 0-50 megs. Accuracy: ±4% max. 6x 7½x4%. 6 lbs.
919-0262...Ea. 111.06 4-Up....Ea. 95.00

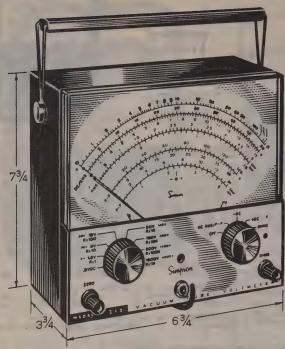
Model 5262 Vinyl Carrying Case. "Ever-Redy" protective case for 7" scale VOM's only. Shpg. wt. 2 lbs. 919-5262....Ea. 19.04 4-Up....Ea. 17.10



SPECIFICATIONS FOR 260 FAMILY VOM's

RANGES	Model 250	Model 255	Model 260-6	Model 260-6M	Model 260-6P	Model 270-4	Model 261-2					
DC Volts	0-0.050, 0-0.250, 0-2.5, 0-10, 0-50, 0-250, 0-500,0-1000	0-0.050, 0-0.250, 0-1, 0-2.5, 0-10, 0-50, 0-250, 0-1000	· ' \$		-2.5, 0-10, 0-50, 500, 0-1000	**** ** * * * * * * * * * * * * * * *	0-0.25, 0-2.5, 0-10, 0-50 0-250, 0-1000, 0-5000					
AÇ Volts	0-2.5, 0-10, 0-50, 0-250, 0-500, 0-1000	0-2.5, 0-10, 0-50, 0-250, 0-1000	e a seed no		0-50, 0-250, 0-1000	a see a see a	0-2.5, 0-10, 0-50, 0-250, 0-1000, 0-5000					
DC Microamperes	0-50 (both 50 ar	nd 250 mV drop)	0-50 (250 mV drop)									
DC Milliamperes	0-1, 0-10, 0-100,0-5	500 (50 mV drop)	0-1, 0-10, 0-100, 0-500									
DC Amperes	0-10 (50 mV drop)	None			mV drop)							
AC Amperes	None		Up to	250 AC amps wi	th optional Amp-	Clamp Adapter						
(1 mW-600 ohms)	-20 to -10, -8 to -22, -6 to -36, -20 to -50	None .		o -10, -8 to -22								
Output Ranges	None	None	0.1	μF capacitor in s	series with all AC	voltage ranges	thru 250 volts					
Resistance	R x 1, 0-2000 ohms	the same of the sa	R	x 100, 0-200k ohm x 10k, 0-20 megs	s (1200 ohms cer (120k ohms cen	nter) nter)						
Temperature	None	+100°F to +1050°F	1	74 , 71	None							
ACCURACIES												
0-50 mV, 0-250 mV, 0-1 to 0-1000 VDC	±2% F.S.	±2% F.S.		±29	% F.S.	±1.25% F.S.	±1.5% F.S.					
0-5000 VDC	11 y 3 - y 1			*,	-		±2.5% F.S.					
0-50 Microamperes	±1% F.S.	±1% F.S.	4	±1.5	% F.S.	±0.75% F.S.	±1.0% F.S.					
0-1 mA to 0-10 A DC	±2% F.S.	±2% F.S.		** · · · · · · · · · · · · · · · · · ·	6 F.S.	±1.25% F.S.	±1.5% F.S.					
R x 1 R x 100, R x 10k	±2.5° of arc ±2.0° of arc	±2.5° of arc ±2.0° of arc	·		of arc	±1.5° of arc ±1.0° of arc	±2.0° of arc ±1.5° of arc					
0-2.5 to 0-1000 VAC	±3% F.S.	±3% F.S.		<u>+39</u>	6 F.S.	±2.0% F.S.	±3% F.S.					
0-5000 VAC					_	_	±4% F.S.					
GENERAL												
Movement Type	Taut Band Self S											
Temp. Compensated	No	No	No	No	No	Yes	No					
Movement Protection	Yes ~ Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Resettable Circuit Protection	No	No	No	No	Yes	No	No					
Mirror Scale	No	No	No	Yes	· No	Yes	Yes					
Scale Length	a francisco de la companya de la com	The same of the same	7,	. 3 - 3	4.2 inches							
Dimensions					51/4 x7x31/8"							
Net Weight		d de	8 11.		31/2 lbs.							

VTVM'S, VOM, Testers, Impedance Bridge



HIGH-ACCURACY VTVM **FEATURING 16-MEGOHM INPUT**

- 40% Less Circuit Loading
- 1/2 Volt DC Range • Large 7" Meter

- Less than 1% Tracking Error

MODEL 312. Produces 40% less circuit loading than most conventional VTVM's. With this VTVM on your workbench or in your laboratory you can do faster, more dependable work. Tracking error is less than 1%. Accuracy is ±3% on all AC and DC ranges. Multiple ranges, including a ½ volt DC rangeC that more than meets today's solid-state testing requirements. Oversized 7 inch meter for more precise readings with less eyestrain. Controls include multiposition range selector, function selector, comes adjust and zero adjust Specialty, designed circuits extent mater. ohms adjust and zero adjust. Specially designed circuits protect meter

SPECIFICATIONS. Ranges: AC-DC Volts, 0-0.5-1.5-15-50-150-500-1500; AC p-p Volts 0-14-40-140-400-1400-4000. Resistance: X1, X10, X100, X1000, X100k, X10k, X100k, X1 919-0312. 1-3..... Each 137.36 4-Up. . A. . S. Dy. Each 117.50

Model 0155 High Voltage Probe. Shipping weight: 1 pound. 919-0155. 1-3......Each 24.55 4-Up......

AC-DC VTVM/6-VOLT RANGE

• +3% Accuracy • Probe Supplied

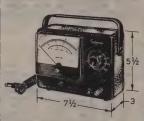
MODEL 303-2. Solves virtually any servicing problem. Excellent 10 megohm input impedance on all ranges for measuring voltage in high resistance circuits without loading. Integral roll-top case.



22 MEG INPUT AC-DC VTVM

MODEL 311-3. The most advanced vacuum tube voltohmmeter in its field. High DC input impedance (22.0 megohm) reduces circuit loading and permits measurements in high impedance circuits. Direct readout of rms and peak to peak values. Highly accurate for low DC voltage measurements in transistorized circuitry. $4\frac{1}{2}^{\prime\prime}$ meter.

SPECIFICATIONS. Ranges: AC-DC Volts, 0-1.5-5-15-50-150-500-1500. AC Volts (P-P), 0-4-14-40-140-400-1400-4000. AF Volts, 0-1.5-5-15-50-500-1500. RF Volts (with probe), 150 volts maximum. Resistance (10 ohm center): 1k, 10k, 100k, 1 megohm, 10 megohm, 100 megohm, 1000 megohm. Accuracy: DC, ±3% of full scale; AC, ±5% of full scale; Frequency Response: ±5% to 100 kHz (Useable to 250 MHz with probe). For 117 VAC. Size: 7½ x 5½ x 4½". Probe and operator's manual supplied. Shpp. wit: 8 ibs. 919-0311. 1-3.....Each 111.05 4-Up.....Each 95.00



ECONOMICAL AC VTVM

MODEL 715. Especially suitable for hi-fi, low-level audio work such as hum and ripple measurements, IF gain, vibration analyzing and other shop or lab uses. Specially designed meter scale provides dB markings on both the voltage range positions and the meter scale.

SPECIFICATIONS. Ranges: AC Volts, 0-0.01-0.03-0.1-0.3-1-3-10-30-100-300 rms. dB, —52 to +52 dBm (Zero dBm=1 mW into 800 ohms). Accuracy: ±5% of full scale. Input Impedance: 1 megohm. Frequency Response: ±1 dB to 400 kHz. For 117 VAC, Size: 7½ x 5½ x 3%. With shielded input cable and operator's manual. Shop, wt: 5 lbs. 919-0715. 1-3...... Each 111.06 4-Up...... Each 95.00



FET SOLID-STATE VOM

MODEL 310. Resistance up to 1 megohm. AC/DC Volts up to 600. Single selector switch. 10 megohm input impedance on DC. 300 mV DC full scale transistor bias measurements. Diode overload protection. Battery operated.

SPECIFICATIONS. Ranges: DC Volts, .3-1.2-6-30-120-600. AC Volts, 3-12-60-300-600 at 5000 ohms/volt. Resistance: 1-100-10k-1 megohm with 50 ohm center scale. DC mA, .12-1.2. Accuracy: DC, ± 3% of full scale. AC, ± 4% of full scale. Size: 4½ x 2³/4 x 1¹5/6. With test leads, alligator clips and batteries. Shpg. wt: 2 lbs. 956-5311. 1-3.... Each 95.85 4-Up... Each 82.00 956-5370. Leather Case. Each 14.84 4-Up. Each 12.70



GENERAL PURPOSE MICROTESTERS

Model 372-2 Ohmmeter. 3" scale. 85 μ A. 0-500-5k-50k-500k. 0-5-50 megohms. With batteries, test leads. Wt: 3 lbs. Model 362-2 Low Ohmmeter. Ranges: 0-5, 0-25 ohms. 3 lbs. Model 370 AC Ammeter. 0-1-25-5-10-25 amps. 3 lbs. Model 390 Volt-Amp-Wattmeter. For 60 Hz, AC. VAC. 0-150-300. Amps, 0-3-15. Watts, 0-300-600-1500-3000. \pm 3% accuracy. 3" meter. Break-in plug, leads included. Wt: 4 lbs.

Stock	Mfr's	Description	EACH			
No.	Type	Description	1-3	4-Up		
919-0372 919-0362 919-0370 919-0390	372-2 362-2 370 390	Ohmmeter Low Ohmmeter AC Ammeter Volt-Amp-Wattmeter	55.53 55.53 52.60 102.69	47.50 47.50 45.00 87.50		



AC CURRENT LEAKAGE TESTER

MODEL 229. For industry, field service, lab or production. Designed to test 120 VAC appliances and electrical equipment in accordance with proposed U.S. Standards Committee specification (C101.1) for AC current leakage. Measures amount of AC leakage current between equipment and ground. Full overload protection up to 150 VAC on all ranges.

SPECIFICATIONS. Ranges: AC Current, 0-0.3-1-3-10 mA. AC Voltage, 0-150 volts. Accuracy: ±2% at 60 Hz. Resolution: 5 µA on 0-0.3 mA range. Input Resistance: 500k on voltage range. Short Test (pointer red, possible short; pointer green, measurable leakage current). Comes complete with test leads, batteries and operator's manual. 919-0229 Each 116.82 4-Up Each 99.50



- Built-in Oscillator
- Front Panel Controls



IMPEDANCE BRIDGE

MODEL 2785. Accurately measures capacitance, inductance, resistance and "Q". Standard 1 kHz oscillator. Frequencies 50 hz to 20 kHz may be used with external oscillator. Coverage: Resistance, .05 ohms-11 meg. $\pm1\%$, $\pm2.5\%$ on lowest and highest ranges. Inductance, .5 μ H-110 h. $\pm1.5\%$, $\pm2.5\%$ lowest and highest. Capacitance, 5 pF-1100 μ F. $\pm1\%$, $\pm2.5\%$ lowest and highest. Tan d and Q; Q x 1, tan d x 1. $\pm5\%$.

Front panel controls for all tests. Test Voltages: DC on resistance ranges, 1 kHz (with internal generator) for inductance and capacitance. Uses two 9 voit batteries. Metal case. Comes complete with batteries, test leads, detailed operator's manual. Shpg. wt. 12 lbs. 919-2785. 1-3. Each 619.98 4-Up. Each 495.00

MULTI-RANGE MILLIOHMMETER

MULTI-RANGE MILLIOHMMETER

MODEL 1899. Measures low resistance values. Checks contact resistance of relays, switches and other electrical components during inspection and production operations. Makes resistance measurements of motor commutators, slip rings, coils, automobile cables, connectors and starting motor leads. Battery-operated for portability. Temperature-compensated. Shielded meter has spring-load sapphire jewels. Sensitivity: 0.001 ohm (smallest scale division). Accuracy: ±1% for the full scale on all ranges. Ranges: 0.05-0.1-0.25-0.5-1-5-10-50 ohms. Readout: 7° analog meter, single arc, 90° dial; mirrored, 100-division linear scale, knifedege pointer. Transistors: two 2N2716. With leads, manual, batteries. Wt. 9 lbs.
919-1699. 1-3...Ea. 244.23 4-Up...Ea. 195.00

266 · ALLIED

AM-FM STEREO ANALYZER PROVIDES ALL 12 SIGNALS NEEDED FOR SERVICING

Model SG165. Complete RF generator, covers full range of both AM and FM RF frequencies for front-end troubleshooting frequencies for front-end troubleshooting and alignment. Calibrated for alignment accuracy. Complete IF Generator, all needed IF signals; crystal controlled 10.7 KHz and 262 KHz for AM servicing. Plus IF Rocker for fixed tuned sets. FM IF Sweep and Marker Generator, crystal controlled markers are post injected for sharp, crisp display. Two cables to do the complete job. Stereo Generator, MPX output available on both RF and IF, plus composite output without carrier. Full, front panel control over 19 KHz pilot, right and left channel signals. High level IHF output for those important Institute of High Fidelity checks. Audio Generator, 400 Hz sine and square wave outputs make short work of amplifier servicing.

Speaker substitute and separation read-out, dummy loads provided so you can operate stereo for servicing without that annoying howl in shop. Separation meters tell you at a glance the performance of MPX decoder for alignment and trouble-shooting. Power output monitor to verify amplifier performance. Roomy lead stor-age compartment. Size: 12x10x8", 16 lbs.Each 495.00



68-RANGE FET VOM WITH LABORATORY ACCURACY

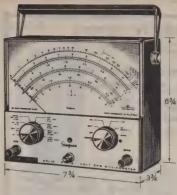
MODEL 2795. Ultra-precision FET VOM features 68 switch-selected ranges, plus complete overload protection, 10-megohm input impedance on all AC and DC ranges above 10 volts; reduces circuit loading for highly accurate voltage measurements in high-resistance circuits. Taut-band meter with mirrored scale. 1% accuracy on both AC and DC scales.

AC and DC scales.

Ranges: AC-DC Voltages: 0-1-3-10-30-100-300 mV, 0-1-3-10-30-100-300-1000 volts;
AC-DC Current: 0-1-3-10-30-100-300 μA, 0-1-3-10-30 ma, 0-0.1-0.3-1-3-amps; Resistance:
Rx1 (10 ohms at center scale), Rx10, Rx-100, Rx1000, Rx100, Rx100, Rx100, Rx100, Rx100, 000; Capacitance: (mid-scale values) 100, 10, 0 μF; 100, 10, 1 nF; Temperature: 18°C from ambient, 180°C from ambient (IC thermocouple-type input) Requires only 1mV for full-scale deflection on voltage ranges; only 1 μA for full-scale deflection on current ranges. 8% x5% x4 4% %". Battery operated. With batteries, test leads, manual. Shpg. wt. 4½ lbs.

919-2795... Ea. 313.12 4-Up... Ea. 250.00 919-5123. Type 22923 18°C Probe.

919-5127. Type 22927 Case.....



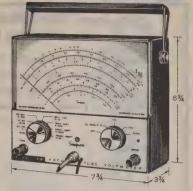
FEATURE-PACKED FET VOM **IDEAL FOR SERVICE MEN**

MODEL 313. Battery-portable FET VOM Ideal for servicemen, technicians, engineers. Gives FET accuracy and low circuit loading for voltage measurements in high-resistance circuits. Has large 7" meter with easy-to-read scale that reduces reading errors. Multi-position range and function-selector knobs reduce setup error. Other controls include zero adjust, ohms adjust, and on-off indicator.

ohms adjust, and on-off indicator.

Input impedance is an excellent 11 megohms on DC, with 1 megohm contained in probe; 10 megohms on AC. Has 8 DC voltage ranges, 0.3 through 1000 full scale; 8 AC voltage ranges, 0.3 through 1000 full scale; 5 DC current ranges, 0.1 mA through 1 amp full scale; 7 resistance ranges, 0 through 20 megohms full scale. Accuracy: DC, ±3% of full-scale on all ranges; AC ±3% of full scale on all ranges at 100 Hz. Temperature accuracy: 25°C ±10°C for zero shift of 1° of arc. Overall frequency response: ±0.5 dB from 20 Hz to 20 kHz for 10, 30, and 100 volt ranges.

Operates from one 9-volt battery—life expectancy is approximately 300 hours. Mechanical power on-off indicator. Battery check position on function switch. Resistance ranges are protected against overload—field-effect transistors will not be damaged should line voltage be accidentally applied. 6% x7% x3% x3% ". With batteries, probe, manual. Shpg. wt. 5 lbs. 919-0313...Ea. 169.50 4-Up...Ea. 145.00



DELUXE FET VOM WITH 7 LOW POWER OHMS RANGES

MODEL 314. Has low AC and DC voltage MODEL 314. Has low AC and DC voltage ranges plus 7 low-power ohmmeter ranges for accurate readings in solid-state circuits without damage to transistors and integrated circuits. Also measures AC and DC current down to 10 µA. Has 10-megohm input impedance on all voltage ranges for negligible circuit loading and highly accurate voltage readings in high-resistance circuits. ance circuits

ance circuits.

Large 7" meter with big easy-to-read dial reduces reading errors to further increase test accuracy. Has on-off indicator that prevents accidental drain on battery for longer life. Ranges: DC Volts, 0-0.15-0.1-0.3-1-0.3-0.1-00.300-1000; AC Volts, 0-0.01-0.03-0.1-000; AC-DC Current, 0-0.01-0.1-1-10-100-1000-mA; Resistance, Rx1 (10-ohm center, Rx10, Rx100, Rx-1k, Rx10k, Rx100k, Rx1-meg; dB, -40 to +60. Accuracy: DC, ±2%; AC, ±3%. AC frequency response, 30 Hz to 100 kHz. X10 switch position transforms input impedance to 100 megohms.

Although VOM is ideal for testing semi-conductor circuits, it can also be used in vacuum tube circuits. Tests TV, FM, AM circuits, makes wide-range voltage, cur-rent, resistance, decibel measurements. 6%x7%x33%". With batteries, leads, man-ual. Shpg. wt. 5 lbs. 919-0314... Ea. 253.67 4-Up... Ea. 217.00

DELUXE SUBSTITUTION BOX

SUBSTITUTION BOX
Model RC167. Surge protection switch Included with
warning light to Indicate electrolytic overload. Includes 24
overlapping resistors with values from 10 ohms to 5.5 megohms. 1 watt up to 10K, ½
watt over 10K. 10 overlapping
capacitors from 100 pF to 0.5
mfd at 600 volts. Electrolytics:
2, 5, 10, 20, 50, 100 and 200
mfd at 450 volts. 500, 1000, and
2000 mfd at 75 volts. Universal
selenium and silicon rectifier
substitutes, 1 amp forward; 800
PIV. Gimbal mount. 7½x11½x
5". Wt. 7 lbs.
941-0167Each 90.00



UNIVERSAL POWER SUPPLY

Model UPS164. Provides all voltages



DELUXE COLOR BAR GENERATOR

GENERATOR

Model CG169. All channel generator. Digital integrated circultry. Single fixed dot for centering and static convergence. Single fixed cross for centering and static convergence. Movable cross for dynamic convergence. Movable cross for dynamic convergence. Produces TV VHF and UHF channels for complete tuner testing. RCA licensed 10 color bars across entire color spectrum. 14 horizontal bars, digital controlled. 10 vertical bars, digital controlled. 10 vertical bars, digital controlled. RF attenuation fringe simulator control for fringe area checks. Thermostatically controlled heater for colder climates. 105-130 VAC, 50 watts. Black vinyl covered steel case. 10x9x4" Wt. 10 lbs. 941-0169.Each 180.00 941-0169



CG25 PORTABLE DIGITAL COLOR BAR GENERATOR

COLOR BAR GENERATOR

Model CG25. Complete small color
bar generator with channel tuning and
color adjust level. Positive digital locking insures stable patterns. Adjustable
dot size and channel selection for
channels 2 to 6. Automatic shutoff of
battery power. Built in preheater forcolder climates. RCA licensed 10 color
bars across entire color spectrum. 14
horizontal bars, digital controlled. 10
vertical bars, digital controlled. 10
vertical bars, digital controlled. 140
small adjustable dots, digital controlled. Lead storage compartment.
Uses two mercury batteries, Eveready
E164 mercury or equivalent (not supplied). Size: 6x41/4 x21/2". Wt. 2 lbs.
941-0025Each 99.00 Each 99.00



Transistor Testers and Multimeters

MODEL TF26 TRANSISTOR/FET TESTER WITH COMPUTER LOGIC CIRCUITS

- Complete In-Circuit Pushbutton Test in One Simple Operation
- Connect Leads any Way You Want
 No Reference Book Needed
- Checks Both PNP and NPN Transistors and FET's
- Out of Circuit Leakage Test to Back You Up





In and out of circuit touch tone transistor and FET tester. Complete in circuit pushbutton test in one operation. Saves minutes over other testers with every check you make. No set-up data or technical knowledge needed. Gives you a "good-bad" readout by simply pressing buttons.

Connect leads anyway you want. Logic circuit determines basing configurations for you, automati-cally, just push buttons. Guaran-teed not to harm transistor circuit under test or tester, no matter how you connect leads. Audible "chirp" tone calls out good transistor.
Tells you instantly you're connected properly and to stop test
and read meter. Checks both NPN,
PNP transistors and N-channel, Pchannel FET's with the same sim-

Automatically determines polarity for you too. Sensitive out-of-circuit test in microamps to back you up. Lead storage compartment and sliding meter cover are included in unbreakable acrylic case. Size: $10 \times 5 \frac{1}{2} \times 3 \frac{1}{2}$ ". Shpg. wt. 4 lbs. 941-0026 Each 140.00

MODEL TF166 PUSHBUTTON **AUTOMATIC TRANSISTOR ANALYZER**

- Dynamic In-Circuit AC Test for Transistors and FET's
- Pushbutton Operation for Fast, Easy Transistor Testing
- Easy to Interpret Good, Bad Scale No Reference Book Needed
- Automatic Test Set-Up ... Puts End to Guesswork



Tests over 20,000 transistor types, In circuit, automatically, in sec-onds without a reference book. Pushbutton operation for fast testing. Push in buttons labeled High Frequency, Low Frequency or Field Effect for checking RF transistors, low, medium or high power transistors and FET's.

Dynamic in-circuit AC test for transistors and FET's. No need to waste time removing components waste time removing components or risking transistor damage from soldering iron heat. Automatic test made with low level signals and voltage to protect device being

Calibrated scale indicates gain of up to 500 (Beta) and mutual conductance of up to 25k micromhos. AC and DC out of circuit tests. Leakage test for transistors (Icso) and FET's (Icso) with direct read-out in microamps of leakage current. Zero bias Idss test for FET's, a must for matching FET's in cascode circuits and industrial

Safe, low level tests. Pushbutton polarity selection for N or P biased components. Size: 9 x 7½ x 6". Shpg. wt. 8½ lbs. 941-0166 Each 190.00

MODEL FE27 PUSHBUTTON FIELD EFFECT MULTIMETER



- Fail-Safe Meter Protection
- Tough Indestructible Acrylic Case

Full pushbutton selection of range and function for simplicity of operation. Illuminated meter scale. Exclusive sliding meter cover — automatic shut-off when cover is closed. Less circuit loading than VOM or VTVM with 15 megohms DC input resistance (shunted by 27 pf). Lead reversal switches. Provides 1.5% FET DC accuracy, 3% AC accuracy, 9 DC ranges: C-0.3, 1, 3, 10, 30, 100, 300, 1000, 3000 volts full scalepositive and negative. 9 zero-center ranges: 0.15 to 0.15, -0.5 to 0.5, -1.5 to 1.5, -5 to 5, -15 to 15, -50 to 50, -150 to 150, -500 to 500, -1500 to 1500, -1500 volts. B AC Volts: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1000, p-p volts full scale. 8 peak-to-peak ranges: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1000, p-p volts full scale. 5 ohms ranges: 0 to 1K, 10K, 1M, 100M, 1000M full scale. 4 DC Current Ranges: 0 to 10 mA, 100 mA,

MODEL FE23 VERSATILE FIELD EFFECT MULTIMETER



- Fully Protected With Sliding Meter Cover **Automatic Shut-off When Lead Cover**

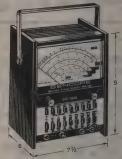
Fully protected inside with protected meter movement, fuse protection, and input protection to 500 times overload. It's burnout proof. Less circuit loading than VOM or VTVM with 15 megohm DC input impedance. Pushbutton selection of range and function. Iluminated meter scale for those darkened areas you often must work in. Just flip a switch whenever light is needed. Completely self-contained with built-in lead compartment. High accuracy of 1.5% DC for those precise measurements you must make. Mirrored meter scales for greatest accuracy. 5 DC Volt ranges: 0 to 3, 30, 300, 1000, 6000 volts full scale. 4 AC Volts ranges: 0 to 3, 300, and 1000 volts full scale. DC Current Ranges: 0 to 1 amp with 3% full scale accuracy. 4 Ohm Ranges: 0 to 1000; 100K, 10 Meg, 1000 Meg with 10 ohms center scale. Power Requirements: 3 AA pen light cells and one 9 volts Eveready 222 equivalent (batteries not included). Size: 4½x2%x7½". Shpg. wt. 2½ lbs. 941-0206.

MODEL FE20 HI-LO FIELD EFFECT MULTIMETER



- Special Low Voltage Scale
- Zero Center Scale for Bias Voltage

FE-160 HI-LO FIELD EFFECT MULTIMETER



- Pushbutton Operation
 Measures 0.1 V, Full Scale on Both AC and DC Volts

on Both AC and DC Volts

Deluxe multimeter is loaded with convenience features. Fast, pushbutton operation—press two buttons to make any test. Full scale sensitivity of 0.1 V, both AC and DC, for servicing solid-state circuits. Measures 30 µA to 3 amps on both AC and DC. Accuracy: ±1.5% DC, ±2.5% AC. Accurately measures high and low power resistors In-circuit. Movement and components protected to 1000 times overload. Fully calibrated zero center ranges for DC voltage and current. 7" mirrored-scale meter; 500 µA, ±2%. Employs ½% deposited carbon multiplier resistors.

268 · ALLIED

Prices Subject to Change — We Always Ship at the Lowest Price In Effect

AC VOLTAGE TESTER





- Portable—Fits in Pocket Measures 3 feet Apart
- Illuminated Readout Bar

MULTI-PURPOSE VOLTAGE **TESTER**





 Can Measure Points Three Feet Apart



275-M CLAMPROBER®

- Easy, Accurate and Safe
- · AC Voltage. Current, Resistance
- Exclusive "Measurement-Hold"

AC current from 1 to 300 A, voltage from 25 to 600 V, resistance from 5 ohms to infinity. Exclusive "measurement-hold" feature stops the meter







A

A TM-33A TEST-MASTER KIT

- Voltmeter-Ammeter-Ohmmeter Deca-Tran Amps Multiplier

Current Sensitivity Energizer

Complete troubleshooting and test kit. Consists of RS-3 AC Voltmeter-Ammeter-Ohnmeter with 3 ranges to 600 volts, 5 ranges to 300 amps and 25-ohm (midscale) range; A-50-1 Deca-Tran to multiply amps ranges 10X; A-45L Energizer to increase current sensitivity; and VLK-311 Extendo Leads. Portable case with snap-lock and space form small tools. 11%x8x3/3". Shgs. wt. 3 lbs. 715-4333.....Ea. 141.35 4-Up.....Ea. 112.85

B RS-3 ROTARY-SCALE TESTER

Provide greater accuracy—only one scale, appropriate to the range selected, shows behind magnified unbreakable window. Pointer-lock freezes readings; measure in the dark, read in light. For safety, insulated jaws clamp around conductor (up to 11/6" dia.) for current. Test leads plug in for voltage and resistance checks. Reads 0-150-300-600 V, AC; 0-6-15-40-100-300 amps, AC; 25 ohms mid-scale. Accuracy ±3% full scale. Portable case, leads. 7½xx2½x11½x". 2 lbs. 715-3003.....Ea. 79.27 4-Up.....Ea. 63.25

JR. TEST MASTER KIT

TM-Y0-525. YO Amprobe Jr., A-45L Energizer, case. Measure voltage, current and resistance. Energizer increases sensitivity 5 or 10 times for precise readings on motors and appliances. Voltage 10 or 10 times for precise readings. or notors and appliances. Voltage: 0-150/600. Current: 0-2.5-5-25 amps. Ohmmeter: 25 ohms mid-scale. 4¾ x 2½ x 1½". Test leads. 1½ lbs. 715-4525. Ea. 54.49 4-Up. Ea. 43.50

WV-120A POWER LINE MONITOR



Provides continuous line voltage monitoring without need for interrupting work to check. Can be used with isolation transformer for selecting line voltages for accurate equipment checks. Voltage range: 100-140 V. Frequency range: 25-400 Hz. Accuracy: ±2% at 120 volts. Moving vane type meter provides accurate readings. Metal case, 31%,x5x3%,x6x. Shog. wt. 1½ lbs. 901-4620. 1-3... Each 26.72 4-Up... Each 24.50 WV-503A. As above, 200-240 volts. 901-4703. 1-3... Each 26.72 4-Up... Each 24.50

JUNIOR TESTER

MODEL YTO525/100. Re-MODEL YT0525/100. Reliable snap-around tester measures 0-150 and 0-600 volts AC, 0-25 and 0-100 amps AC, plus resistance (25 ohms midscale). Compact and lightweight-fits in a pocket. Accurate, one-hand operation ends guesswork. Accuracy, ±3% full scale. Supplied with set of voltage test leads. Perfect as a

test leads. Perfect as a spare instrument. Shpg. 715-5095......Ea. 46.66 4-Up......Ea. 37.25

MODEL YT525/100. Same as above, but without ohmmeter scale. Shpg. wt. 1 lb. 715-5015......Ea. 40.40 4-Up.....Ea. 32.25

Model B Carrying Case. Shpg. wt. 1 lb. 715-1000 Ea. 9.35 4-Up Ea. 7.48

TEST-MASTER KIT

TEST-MASTER KIT

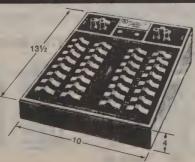
MODEL TM-63. Includes RS-3
Rotary-Scale Snap-Around
Volt-Amp-Ohmmeter that reveals only one range at a
time to eliminate guesswork.
Insulated jaws clamp around
conductor (up to 1½/6" dia.)
for current; test leads plug
in for voltage and resistance
tests. Ranges: 0-150/300/600
VAC; 0-6/15/40/100/300
amps AC; 25 ohms midscale. Accuracy, ±3% full
scale. With VLK-311 "Extendo-Leads" that eliminate
the need for a "third hand";
plus A-45L Energizer that increases RS-3 sensitivity 5 or 10 times. Compact case has hinged
cover, snap lock, handle. 12x4¼x3". Wt 3 lbs.
715-4363.....Ea. 95.00 4-Up....Ea. 75.85

LP-510 AND 530 TEST PROBES



INTEGRATED CIRCUIT TESTER

MODEL IC590. Battery-powered tester for static and dynamic





Contact Allied Electronics for Larger Quantity Prices

VTVM's, VOM's and Accessories

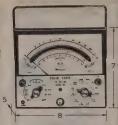


NEW!

MODEL 603 FET-VOM WITH LOW POWER OHMS



MODEL 601 SOLID-STATE VOM



MODEL 801 71/2-INCH SOLID-STATE



MODEL 850 WIDE-RANGE

"Micro-Power" provides life of a year for carbon batteries. Low power ohms for measurements without component damage. Auto-polarity. AC and DC Volts: 0-0.3-1-3-10-100-300-1000; input resistance 11 meg. DC; 10 meg. AC; frequency range 20 Hz to 10 kHz. Ohms: 0-1k-10k-10k-10k-1 meg-10 meg-1000 meg (low power-70 mV, 123 μW; conventional-1.5 V, 56 mW). AC and DC mA: 0-1-10-100-1000. dB: -30 to +62. Scale length, 4½". Protected meter. Accuracy: ±3% volts and ohms; ±4% current. With batteries, leads. Shielded case, 6½x5½x3½«". 5 ibs. 956-0603...Ea. 202.24 4-Up...Ea. 173.00

TYPE 1. Accuracy: ±2% on DC ranges, +3% on AC. Frequency response on AC, 50 Hz to 50 KHz. Single rotary switch selects from 52 ranges. Color-coded 5" meter. Ranges: DC volts: 0-0.1-0.3-1-3-10-30-100-300-1000. AC volts: 0-0.1-0.03-0.1-10-100-100-10k-100k; 0-1 megohms. 10 ohm center scale. AC and DC current: 0-10-100-100-1000-10,000 µA. Decibels: -40 to +60 db. 3% "x5%"/x6½". Carrying handle/supporting stand. With batteries and pencil-thin probe. Shpg. wt. 5 lbs. 956-0601...Ea. 227.28 4-Up...Ea. 191.00

Ranges: DC Volts: 0-0.05-0.15-0.5-1.5-5-15-50-150-500-1500 volts, accuracy, ±2% full-scale except 150 V, ±3%; 11 meg input impedance. AC Volts: 0-0.005-0.015-0.5-0.5-1.5-50-150-500-1500 volts; accuracy, ±3%; input, 10 megs. AC/DC Current: 0-5-15-50-150-500 µA, 0-1.5-5-15-50-150-500-1500 mA; accuracy, ±3% DC, ±4% AC. Resistance: Two circuits, conventional using 1½-volt power (X1, X10, X100, X14, X10k, X10k, X1 meg); 10 ohms center on X0.4. Decibels: -50 to -66 dB. 8x7x5″. Shpg. wt. 7 lbs. 956-0801... Ea. 287.07 4-Up...Ea. 243.00

Accuracy: ±3% AC/DC. Ohms to within ±3% full scale based on DC scale. DC V: 0.-5.-1.5.5-15.50-150.500.1500. AC rms V: 0.-1.5.-5.15.50-150.500.1500. P-p V: 0.4-14.00.400.400.400. Resis: 0.-1000.-10,000.100,000.1 meg-10 meg-100 meg-100 meg. Frequency: 15 Hz to 3 MHz. Input resis.: 11 meg DC V, AC V min. .83 meg. 75% x 6%x33% ". 115 VAC. 7 lbs. 956-0850. .Ea. 139.11 4-Up...Ea. 119.00 T-79-215 RF Probe. For 20 V. 956-0190...Ea. 13.56 4-Up...Ea. 11.60



MODEL WV-500B SOLID-STATE VOLTOHMYST



MODEL WV-510A MASTER VOLTOHMYST



WV-77E ECONOMY VOLTOHMYST

Battery operated meter has ranges for both rms and peak-to-peak AC volts. Ideal for audio, radio, TV and industrial servicing and testing. Ranges: DC volts, 0-0.01-0.5-1.5-5-15-150-500-1500. AC volts (rms), 0-0.2-1.5-5-150-500-1500. AC volts (p-p), 0-0.5-14-42-140-420-1400-4200. DC current in eight ranges from 0.01 mA to 1.5 A. Seven overlapping resistance ranges from 0.2 ohms to 1000 megohms. AC frequency response (on 1.5 and 5 VAC ranges), ±1 dB, 30 Hz to 3 MHz. 67/855/x33/s". With probe, batteries. Shpg. wt. 31/2 lbs. 901-4700...Ea. 111.06 4-Up....Ea. 99.95

The perfect instrument for the professional who wants a quality testing tool, at an economical price. For a wide range of industrial, institutional and lab uses. Measures DC, 0.01-1500 voits, in 8 ranges; AC, 0.2-1500 voits; Direct Current from 0.01 mA to 1.5 A; AC p-p voltage from 0.5 to 4200 voits; resistance values from 0.2 ohm to 1000 megohms. Accuracy: ±3% of full scale reading. With WG-401A probe and cable, alligator clip, current leads, instructions. 110-135 V, 50-60 Hz AC. 6%x5/4x 3/4". Shpg. wt. 8 lbs. 901-4710...Ea. 150.30

Electronic burnout protection. Rugged 200 μ A meter movement and 1% precision resistors for high accuracy. 7 voltage ranges for AC p-p and rms V. 8 ranges for DC V. 7 resistance ranges. Reads AC rms and DC V to 1500; AC p-p V to 4200. 0.5 VDC scale. Resistance 0.2 ohm-1000 megs. DC input resistance 11 megs. AC input impedance from 830k ohms and 70pF to 1.5 megs and 60pF. Test probe, shielded cable, instructions. 6½x7x33 4 %. Operates on 110-130 VAC. Shpg. wt. 6 lbs. 901-4598... Ea. 111.06 4-Up... Ea. 99.95

Ranges: AC rms/DC volts: 0-1.5-5-15-50-150-500-1500; AC p-p volts. 0-4-14-40-140-400-1400-4000; resistance. 0-1000-10k-100k ohms; 0-1-10-100-1000 megohms. AC frequency response: 5% from 40 Hz to 5 MHz on 1.5, 5 and 15 V rms and 4, 14 and 40 V p-p range. Accuracy: DC, 3% of full scale; AC, 5% of full scale; AC, 5% of full scale. Has individual scales for 1½-2 v rms and 4-V p-p. 73x55kx34". With ultra-slim probes and extra-flexible test-lead cables, instructions. 105-125 VAC. Shpg. wt. 5 lbs. 901-4577... Ea. 75.15 4-Up... Ea. 69.50



MODEL 240W FOR GENERAL-PURPOSE WORK



DELUXE MODEL 242W WITH 61/2" SCALE



MODEL 232W 41/2-INCH VTVM

Ideal for color TV and all general service. Gives true peak-to-peak measurements on separate scales. Includes deluxe features of Model 249W below, but has 4½" meter. With Uniprobe-haif turn of probe tip selects DC or AC/ohms ranges. Ranges: p-p volts, 0-4-14-42-140-420-1400-4200 volts; DC/rms volts, 0-15.5-15-50-150-500-1500 volts; Resistance, 0-1500 vol

MODEL 249W 71/2-INCH VTVM



Highly efficient deluxe VTVM for bench or field use. Versatile, easy to use, accurate. Gives true peak-to-peak measurements on separate scales. Includes single DC/AC/Ohms Uniprobe. Electronically protected 7½" meter, balanced bridge circuit. Zero center scale and 1% precision ceramic multiplier resistors. Ranges: p-p AC volts, 0-4-14-42-140-420-1400-4200; AC rms and DC volts, 0-1.5-5-15-50-150-500-1500; Resistance, 0-1000 megs in 7 ranges. Frequency response, flat from 30 Hz to 3 MHz. 8½x13x5". Operates on 105-125 volts, 50-60 Hz AC. Shpg. wt. 9 lbs. Wide range of industrial applications. 775-0250....Each 87.63

VTVM POWER SUPPLY-ECONOMICAL AND CONVENIENT





Brings new convenience and economy to test equipment users. Here is a true miniature 1½-volt DC power supply that replaces ohmmeter batteries in most VTVM's. Takes only a few minutes to mount and wire. Eliminates the need for replacement batteries. Also eliminates dangerous "battery mess" caused by battery bleeding and corrosion. No bulky weight or size to worry about ... it occupies the same space of any standard "D" Cell. And the best thing about this economical and lightweight power supply is that it fits virtually any VTVM using standard "D" cell for ohmmeter. For a wide range of industrial and institutional applications. Shpg. wt. 4 oz. 841-4004.....Each 6.25 4-Up....Each 5.00

Contact Allied Electronics for Pricing on Larger Quantities

DELUXE SIGNAL TRACER

- · Checks Radios, Tuners, Amplifiers
- 400 Milliwatt Continuous Output
- Supplied Complete with Probe

Model 150W. Checks radios, amplifiers and tuners stage-by-stage to determine where the problem lies. Has RF and audio inputs with probe. Provides 400 mW continuous power output. Built-in speaker, plus calibrated meter output indicator. Substitution amplifier, output transformer. For 117 VAC. 3½ x 8½ x 5°. Shpg. wt. 6 lbs. 775-0150. Each 92.80 4-Up Each 89.95

VERSATILE SIGNAL TRACER

- · High-Gain RF and Audio Input
- Visual Eye and Speaker
- VTVM/Oscilloscope Output

Model 147W. Invaluable aid for step-by-step servicing of FM/AM radios, amplifiers and tuners. Has two input channels—high-gain RF and audio. Visual eye tube and speaker monitor. Has noise locator, wattmeter, VTVM/oscilloscope output. High gain for tracing to receiver input. For 117 VAC. Size, 9 x 10 x 5°. Shgs. wt. 10 lbs. 775-0147. Each 81.78 4-Up. Each 69.95



MICRONTA®.

TRANSISTORIZED SIGNAL TRACER FOR STAGE-BY-STAGE CIRCUIT CHECKING

Model 22-010. Stop wondering where the trouble is in any receiver, amplifier or tuner... find it easily by checking the actual signal as it travels stage-by-stage through the receiver. Troubleshoots electronic equipment in the most basic manner possible, by determining the manner in which the signal passing through the equipment is handled by the various circuits. If any stage or circuit mishandles the signal, creates distortion, fails to amplify properly, or even reduces the signal, it will be found easily using the signal-tracing method.

This transistorized signal tracer can even be used for testing microphones, record players, and FM-AM tuners and receivers. Easy to use, with complete instructions provided. Has built-in 2" speaker and adjustable volume control. Comes complete with 9-volt battery, test leads and easy-to-foliow instructions. Overall size, 2x5% x 1½". Shpg. wt. 1 lb. 910-4510 Each 12.95



- Checks RF, IF, Audio Signals from Antenna to Speaker
- Essential for Hobbyists,
 Servicemen and Technicians



TRANSISTOR **TESTERS**



MODEL 162 TRANSISTOR/FET TESTER. Tests diodes, unijunctions, SCR's and Triacs. Easy to operate, Go-no-go test instantly tells if device is cause of defect. DC injection provides accurate in-circuit tests. 3 transistor leakage tests: IcBo, IcEo, IceD, IceCo,
MODEL 685 SEMI/CIRCUIT ANALYZER. Tests unijunction transitors, SCR's, power rectifiers, signal diodes, Zener diodes, FET, bipolar transistors. Taut-band meter measures accurate leakage. AC Beta (in-and-out of circuit) 2-100, 2-1000 at lc 20 mA for power devices. Icao 0-5 mA (30 \(mu\)A center scale). 12½ x8½ x8″. For 115 VAC, 60 Hz. Shpg. wt. 4 lbs. 775X-0685. 1-3...... Each 170.95

MODEL 22-024 TRANSISTOR CHECKER. Go-no-go test instrument shows open and short circuits, current gain on quick-check front panel. Tests all low, medium and high power transistors in or out of circuit. Also checks diodes and PNP, NPN transistors. Clip leads. 6½x3x2½". Shpg. wt. 2 lbs. Each 14.95

MODEL ACT-1 AUDIBLE CONTINUITY TESTER. Indicates circuit continuity with clear, audible tone—eliminates the need for visual checks. Pitch varies with resistance (0-50 ohms). Unique short-circuit measurement draws just 6 mA at probes. Low voltage—no danger of destructive inductive kickback. Safe with semiconductors and delicate circuits. 30" test probe leads. Uses 9-volt battery. 33/x23/x13/x". Wt. 81/2 oz. 532-0801. 1-9. Each 12.95 10-24. Each 10.82 25-99. Each 8.97 100-Up. Each 7.97







5.70 5.55

2100 41/2" PORTABLE INSTRUMENTS

Modern styling features white case and Century Series meter. Large scale has knife-edge pointer. Non-fogging glass lens. Self-shielded DC and AC rectifier movements; polished, spring-loaded jewels. DC instruments have ±2% full-scale accuracy; AC, ±3%. Four color-coded binding posts, one common and three for range selection. Binding posts accept pin tips, spade lugs, banana plugs or wire. 5.70x5.15x5.55". Shpg. wt. 1 lb.

Stock M	Mfr's	Panes	CH	
No.	Туре	Range	1-3	4-Up
919-7950		0-1.5-3-30 A DC	42.92	38.55
919-7951		0-1-10-100 mA DC	42.92	38.55
919-7952		0-25-50-500 mA DC	42.92	38.55
919-7954		0-1.5-3-30 V DC	42.92	38.55
919-7955	17956	0-10-25-100 V DC	43.92	39.45
919-7956		0-3-15-150 V AC	61.29	55.05
919-7957		0-30-150-300 V AC	61.29	55.05



MODEL 2100 PORTABLE INSTRUMENT KIT

Complete kit for mounting any 4½" panel meter, to meet specific needs. Rear hole permits mounting a fuse holder as required; nylon plug covers hole when not in use. Kit includes: case, panel assembly, legend overlay, two binding posts, nylon plug, hardware, complete assembly instructions. See the complete meter section in this catalog for a complete selection of 4½" meters to choose from. Shpg. wt. 1 lb. 919-7949. 1-4....Each 14.00 4-Up.....Each 11.20 Complete kit for mounting any

REED FREQUENCY METERS

Vibrating reed design with high Q for fast response and accuracy within ±0.3%. Flush panel. MIL-M-6B mounting. Flange, 3½"; body dia. 2½", depth 2½", For 100-130 volts.

MODEL 33-FX. For 400 Hz power sources, particularly aircraft. Range: 380 to 420 Hz with frequencies in 5 Hz steps. 1.5 watts power consumption. 90 ohms/volt.

826-5353. Wt. 12 oz. 1-3.... Each 48.16 4-Up.... Each 41.50 MODEL 34-FX. Range: 56-64 Hz, in 1 Hz steps. 1 watt. 110 ohms/V. 826-5373. Wt. 12 oz. 1-3.... Each 38.73 4-Up.... Each 33.20



Body 211/16 D. - Depth 223/32

FG FREQUENCY METERS

Modern-styled frequency meters designed to enhance any installation. 3½" wide and 3" high designed for flush mounting. Designed to match most models of other manufacturer's meters. Special design flexibility is provided by the use of a half-bezel adapter (listed in table at right) that acts as a "picture window" to outline a panel area 3.83x2.27" and effectively concentrate attention in the portion of the dial to be read. Permanently calibrated dials need no further adjustments.

High Q characteristics make them ideal for measuring frequency in electronic circuits. Retain high accuracy under almost all conditions, not affected by poor waveforms, external magnetic disturbances or line voltage fluctuations. 100-130 VAC. Av. wt. 1 lb.

2.27	
------	--

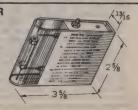
Stock	Mfr's	No.	Frequency	EACH	
Main No.	Type	Reeds	Range, Hz	1-3	4-Up
826-5301 826-5370 826-5364 826-5365	34-FG-11	10 9 11 21	48-52, 58-62 56-64 55-65 45-65	41.77 41.53 42.25 55.75	35.60 36.21
826-5001	13A-234	Haif-	Bezel Adapter	4.83	3.22

MICROWAVE HEATING SYSTEM LEAKAGE DETECTOR

• Simple-to-Operate • Compact

For all users of microwave heating systems including vending and domestic table top units. Self-contained and compact. Simple operation with just a button to press. Detects leakage energy below the one mW per sq. cm. required by the HEW for heating equipment at time of manufacture. For installed equipment the unit will detect leakage at the maximum allowed level of 5 mW per sq. cm. Frequency: 2450 MHz. Uses 9V battery. 25/8 x3 1/4/6". Wt. 4 oz. 567-0114. 1-3......Each 72.50 4-Up......Each 69.50







SOLID-STATE SOUND LEVEL METER

- Battery
- Powered

 Meets ANSI,
 Other Fed. Standards



POCKET SOUND LEVEL METER

Environmental Safety Instruments

Professional Accuracy
 Meets ANSI

Model 451. Pocket-size instrument makes professional-type sound level measurements. Compact size; self-scaling tautband meter; foolproof pushbutton operation; long life circuitry on computer grade glass-filled epoxy PC board. Industry standard A weighting network. Direct reading; has O.S.H.A. exposure/hours scale. Range: 45-130 dB. Frequency: 30 Hz to 8 kHz. Meter gives 20 dB span without switching. Fast-response button, battery condition meter. Omnidirectional ceramic microphone. 2½ x 5 x 2%". With battery, pouch case. 2 lbs. 939-4510 ... Each 98.00

939-4510 Each 98.00

Type S3a Requirements



SOUND **PRESSURE** LEVEL METER

- Meets ANSI and OSHA Requirements Extending Microphone

..... Each 292.25



MUSIC/ SOUND LEVEL METER

Low Cost
 Helps Adjust

 Stereo Balance

 Protects Ears

Bv REALISTIC®

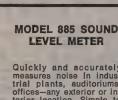
Measure music or noise levels easily and accurately, indoors or outdoors. Amazingly low price! Lets you protect your ears and see how loud rock music and other sounds can be. Test range is from 60 to 116 dB—quiet room level to ear-damaging level. Individually calibrated to ±2 dB at 74 dB level. Freq. response, ±2 dB from 40-14,000 Hz. Meter is ASA Standard fast or slow for average readings. Silicon solid-state circuit uses 9-volt battery. Precision shaped case, 7/4x2/4x2/4/2 3 lbs. 910-4028. Type 33-1028 Each 49.95 910-5112. Type 23-464. 9-V Battery. Ea..49



Vibration Measuring Accessory. 939-1130. 1-3. Ea. 36.74 4-Up. Ea. 29.39

450X1 Carrying Case. 939-0451, 1-3...Ea. 20.00 4-Up...Ea. 17.00

2.09



Quickly and accurately measures noise in industrial plants, auditoriums, offices—any exterior or interior location. Simple to operate, with all solid-state reliability. Covers 40 to 140 dB with A, B, C weightings. Helps you meet O.S.H.A. and Walsh-Healy requirements. Conforms to two 9-volt batteries (included). Built-in tripod mount. Accuracy: ±1.0 dB from 63 Hz to 4 kHz, ±2.0 dB from 31.5 Hz to 8 kHz. Output jack for recorders and analyzers. Screwdriver calibration. 3.63 x 5.38 x 2.09".

919-0886. Each 292.25 919-0887. Type 00575 Carrying Case. Each 12.00 919-0888. Type 00576 Safety Wrist Strap. Each 4.75



 Self Contained Single Switch

MODEL 889 CALIBRATOR

956-0360 ...

For calibrating Model 885 Sound Level Meter (listed at left) with ±1 dB accuracy. Hand-size, self-contained, single-switch unit has built-in LED battery test Indicator. Acoustic Output: frequency, 1000 Hz; pressure level, 114 dB. Accuracy at 23°C and 760mm is ±1 dB. Powered by self-contained 9-volt batteries. Temperature range: 0 to 40°C operating, -24° to +55°C non-operating. Humidity: 95% RH and +30°C. Size, 5" long x 2.25" dia. Comes complete with batteries, adjusting screwdriver and operator's manual.



SOUND LEVEL METER OUTFIT

Model 885 Sound Level Meter, Carry-ing Case and Calibrator

Contains everything needed to make fast and accurate noise measurements: Model 885 Sound Level Meter, Model 889 Calibrator, three spare 9-volt batteries, calibrator adjusting screwdriver, wrist strapall in protective case. Lets you carry noise level measuring capability with you to any location. 919-0890. Each 403.30

MODEL 3030 HIGH-ACCURACY PORTABLE PYROMETER

Thermocouple-activated. For checks of lab ovens, furnaces, refrigeration equipment, oil baths, more. Features taut-band meter movement to provide precise ±1% accuracy. Frictionless movement offers near perfect repeatability and high shock resistance. Fully compensated for ambient and copper error with bimetal and thermistor. Calibrated for rustproof Chromel-Constantan thermocouple probe. Meter calibrations in F° and C°. Alum. trimmed ABS plastic case. Clear 3" meter scale. Size, 5.5x8x2.3". Shpg. wt. 1 lb.

PYROMETERS

Stock	RANG	ES	EACH		
No.	°F	°C	1-3	4-Up	
716-1033 716-1034 716-1036	0 to +500 0 to +800 0 to +1500	0 to +260 0 to +430 0 to +800	92.35	79.00	

THERMOCOUPLE PROBES

716-1335. Straight Surface Probe. 4 oz. Each 37.87
716-1333. Needle Probe. 4 oz. Each 37.87
716-1332. General-Purpose Probe. 4 oz. Each 37.87
716-1336. Wire. 4 oz. Each 13.46
716-1334. Probe Handle. 4 oz. Each 9.46



MODEL 408 PORTABLE ILLUMINATION LEVEL METER

Four ranges—15/50/150/500 ft.-candles. Makes luminance measurements with access. tube. Also use as exposure meter. Universal matching to eye response without additional filter. Accuracy to 85 angle of incidence. With X100 ex. filter 1500/5000/15000/50000 ft.-candles. Accuracy: ±5%; ±8% x100 filter; ±9% luminance tube. Light sens. element: 1.8" dia. selenium photocell. Spectral sens.: matched to wavelength curve. Lum. meas.: x2 tube. 300/1000/3000/10000 ft.-candles. Exposure meter table: .5 to 7400 ft.-candles. Light val. for 50 ASA film, 0-14 EV @ 18. 60 sec. down to 1/250 sec. Scale Size: 3.2x4.6x1.6". 3% lb. 919-0408. 1-3. Ea. 151.97 4-Up. Ea. 130.00 Four ranges-15/50/150/500 ft.-candles. Makes



FASTEMP TWO-RANGE INDUSTRIAL THERMOMETERS

- Temperature Readings from Up to 3 Locations Zero in on Hot and Cold Spots in Seconds
- Boon to Air Condition-ing Servicemen



ACCURATE TEMPERATURE MEASURING INSTRUMENTS

- Scales Calibrated in Both
 Fahrenhelt and Centigrade
 Gives Virtually Simultaneous
 Temperature Reading from
 up to Three Locations
 Vinyl Case Available
 Thermistor or Iron-Constantan
 Thermocouple Model

MODEL 388-3L THERM-O-METER. Takes accurate readings from -50° to $+1000^\circ F$ on 7'' scale. Iron-constantan thermocouple. Room temperature compensation. Type 0190 7½-ft. probe. Provision for 3 probes; readings in 3 different areas. Accuracy, $\pm11/2$ scale divisions. 6 x 71% 21% With battery. 919-0388. 6 lbs. 1-3.... Each 128.59 4-Up.... Each 110.00

MODEL 0187 SURFACE TEMP. PROBE. Shpg. wt. 1 lb. 919-0187. 1-3 Each 16.03 4-Up. Each 14.40

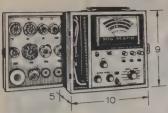
MODEL 389-3L TEMPERATURE METER. Similar to 388-3L, but uses thermistor sensing element, has dual ranges for measuring -50° to $+100^{\circ}$ F and $+100^{\circ}$ F to $+250^{\circ}$ F. Accuracy $\pm 2^{\circ}$ F. 919-0389, 6 lbs. 1-3... Each 116.90 4-Up... Each 100.00 MODEL 0790 SURFACE TEMP. PROBE. Shpg. wt. 1 lb. 919-0790. 1-3... Each 13.52 4-Up... Each 12.15

MODEL 5262 VINYL CARRYING CASE. For either model. 919-5262. Wt. 1 lb. 1-3.....Each 19.04 4-Up.....Each 17.10

Model T-150. Get virtually simultaneous temperature readings from up to three locations by turning selector switch. Activate any one of the probes instantly. Zero in on hot and cold spots in seconds. Compare inlet and outlet temps. of cooling and heating units; set refrigerator, freezer thermostats; check ambients to within ±2°F or ±1°C; use for bearing in rotating equipment, non-corrosive plating baths and heating plates. Ranges, +40°F to +150°F, -50°F to +50°F. "Press-to-read" button extends battery life, locks in for continuous readings. Uses "AA" batts., not incl. With universal probe. 14 oz. 715-2811. 1-3.....Each 58.24 4-Up.....Each 46.50 RBT-11 IMMERSION PROBE. Shpg. wt. 7 oz. 715-2811. 1-3.....Each 11.90 4-Up.....Each 9.50 FTC CARRYING CASE. Shpg. wt. 14 oz.

FTC CARRYING CASE. Shpg. wt. 14 oz. 715-1100. 1-3..... Each 12.19 4-Up.... Each 10.25

NEW!



AUTOMATIC CRT TESTER

MODEL CR168. Features automatic tracking. No calculations needed. Computer memory bank stores the necessary information. Simply read tracking on meter after making emission tests. Simplified operation. No instruction book needed, just follow the function control. Test all CRT's including 17" Japanese Triniton and the new RCA 110 degree short tube. Reads heater to cathode or cathode to control grid shorts right on 7" D'arsonval meter. Filament voltage and shorts test also read on the meter. Shpg. wt. 12 lbs.



HYBRIDER TUBE AND TRANSISTOR CHECKER



MIGHTY MITE TUBE TESTER

MODEL TC162. This new Improved model checks just about every tube type you'll come across in general servicing. Pin elimination switches effectively cut off the inner connected pin, allowing many more tubes to be tested. Elimination switches operate independently for ease of repair. Checks cathode emission at full rated load and grid leakage at 100 megohms. This unique feature has made it the fastest selling tube tester anywhere. It also provides highly sensitive stethoscopic shorts test. Complete with operating instructions.



MUTUAL CONDUCTANCE TUBE/TRANSISTOR TESTER

Model 667W. Combines mutual conductance (Gm) with plate conductance (Gp) tests into dynamic and peak emission test for single readout. Transistor gain/leakage tests. Checks nuvistors, novars, compactrons, miniatures, subminiatures, octals, loctals, special purpose tubes, VR's, cold cathode regulators, electron-ray indicators. 4½" D'Arsonval meter with 200 µA sensitivity. Roll chart. 4½x15x 12" case. Shpg. wt. 23 lbs. 775U-0667. Ea. 198.68 4-Up Ea. 169.95

Model CRU CRT Adapter. Cathode ray tube test. Shpg. wt. 1 lb. 775-1701. 1-3 Ea. 17.49 4-Up Ea. 14.95



MUTUAL CONDUCTANCE/ **EMISSION TUBE ANALYZER**

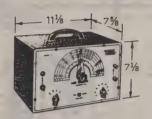
MODEL MU150 CONTINENTAL II. No



RF SIGNAL GENERATOR

RF SIGNAL GENERATOR

MODEL 324W. Signal generator has expanded frequency range, covering 150 kHz to 145 MHz in six fundamental bands. One harmonic band covers 111 to 435 MHz. Has 400-Hz sine wave output, variable 0-50%; also takes external modulation sources. Single control for internal or external modulation. Coarse and fine RF attenuators provide smooth control of RF output signal. Accuracy: ±1.5%. Has 6:1 vernier tuning dial for exact frequency settings. 8x10x43/4". Operates from standard 115 VAC. Shpg. wt. 8 lbs. 775-0324. 1-3 Ea. 81.78 4-Up Ea. 69.95



SINE/SQUARE WAVE GENERATOR

WAVE GENERATOR

MODEL 377W. Sine-wave range: 20200,000 Hz in 4-bands. Square-wave
range: 60-30,000 Hz in 4-bands (5%
tilt at 60 Hz, 5% rounding at 30,000
Hz). Response: ±1½dB,60 Hz to 150
kHz. Output: 10 volts across 10 ohms
rated (100 mW); drops to 8 volts
across 500 ohms, rises to 14 volts
across 10K ohms or higher. Wien
Bridge oscillator with 1% resistors.
Calibration accuracy: ±3% or 1 Hz,
whichever is greater. Hum: under
0.4% of rated output. Distortion: less
than 1%. 6½" dial. Aluminum/steel
case. 7½x x11½x x7½". 117 VAC.
Shpg. wt. 14 lbs.
775-0376. 1-3 Ea. 93.47 4-Up Ea. 79.95



DELUXE AUDIO GENERATOR

DELUXE AUDIO GENERATOR
MODEL 378W. Low-distortion sine
wave output 1 Hz to 110 kHz. Detent switches select 1 Hz, 10 Hz, 100
Hz, 1 kHz steps. Low distortion (less
than 0.1% from 20 Hz to 20 kHz).
Frequency accuracy of ±5%. Detent
switches select combinations of 1%
resistors and 2% capacitors for precise metered output, controlled by
8-position decade and fine atenuators.
Output level sets 0 to 10-V rms (or
-70 to +22dB) on 4½" meter. Below
1-V rms output, switch-selected internal 600-ohm load can be disconnected. 81/2x12x9". 117 VAC. 16 lbs.
775X0378, 1-3 ... Ea. 140.23
4-Up ... Ea. 119.95



HAND-HELD SOLID-STATE SIGNAL GENERATOR/ PROBE/INJECTOR

MODEL 22-4032. All-purpose signal generator with built-in signal injection probe for quick and easy tube or transistor-circuit trouble-shooting. Produces signals for tracing in AF, IF and RF circuits. Simple pushbutton operation, Has battery-strength indicator lamp. Size: 5" long x 1%" diameter (less probe). Complete with batteries. Shpg. wt. ½ lbs. 910-4382



R-C BRIDGE CAPACITOR TESTER

CAPACITOR TESTER

MODEL 950W. Combination R-C Bridge
plus R-C-L Comparator reads 0.5 ohm
to 500 meg and 10pF to 500 μF (In
four ranges). Tests are completely
accurate and reliable. Variable 0-500
VDC source tests capacitors for both
shorts and leakage. Highly versatile
unit also yields measurements for the
power factors of electrolytics. Large
dial is easy-to-read. Carrying handle.
Take anywhere that testing is needed.
Completely self-contained. 8x10x43/4".
115 VAC. Shpg. wt. 6 lbs.
775X0950. 1-3 Ea. 70.09 4-Up Ea. 59.95



BRIDGE TYPE CAPACITOR TESTER

MODEL 955W. Tests capacitors for shorts, opens and value, in or out of circuit. Short test: up to 2000 μF, with 1 ohm shunt resistance; maximum test voltage, 6.3 VAC (open leads), decreasing with decreasing Impedance. Successful open test made on capacitors as low as 15pF. Capacity measurement: From 0.1 to 50 μF in or out of circuit, with Wein bridge circuit; shunt resistance as low as 35 ohms. Uses one coaxial lead for all tests; mike connector coupling. Completely portable size is only 8½x 53/4x6″. Less leads. Operates on standard 115 VAC. Shpg. wt. 6 lbs. 775-0955, 1-3 Ea. 70.09 4-Up Ea. 59.95



SINE/ SQUARE WAVE GENERATOR

MODEL WA-504A. 20 Hz to 200 kHz in four ranges. Solid-state circuit including MOS FET oscillator. Essentially flat output voltage — ± 1.5dB, 30 Hz to 100 kHz. Sine wave output voltage: 10-v rms or more into rated load. Distortion: 0.25% or less over entire audio frequency range. Switch selection of sine or square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square wave output; 10-1 step attenuator. Single scale dial. Square save successive single scale dial. Square save successive successive single scale dial. Square save successive single scale dial. Square save successive single scale dial. Square save successive successive single scale dial. Square save successive Wt. 4 lbs. 901-1504. 1-3 Ea. 111.05 4-Up Ea. 99.95

Oscilloscopes and Curve Generator



NEW!

DUAL TRACE TRIGGERED SWEEP SCOPE

 Pushbutton Selection of Trigger Sources

Model PS163. Extremely stable triggered sweep with full bandwidth capability in both automatic and manual modes. Phase locked matched channels with less than 1% phase shift between channels. Free running feature allows use as a sync sweep service scope. Fully protected FET input of 1000 VDC and 5000 VAC p-p using low cap probe. All solid state with regulated 2 kV CRT supply for bright trace. Front panel Vector capability with push of a button. Separate TVV and TVH functions with sync separators. Specifications: Vertical: Sensitivity, 5 mV/cm to 50 V/cm with low cap probe. Band width, DC-8 MHz ±3 dB usable to 20 MHz. Accuracy, ±2%. Rise time, 35 ns. Input impedance, 1 meg shunted by 35 pF; 10 meg/lo-cap probe. Horizontal: Time base, 0.1 µs/cm to 0.1 sec/cm in 19 ranges. 115 VAC. With 2 low-cap probes.

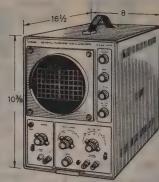


NEW!

SINGLE TRACE TRIGGERED SWEEP SCOPE

Completely Automatic Triggering

Model PS29. Set the varispeed on 3.58 MHz and you will have every color signal at your fingertips with a push of the buttons. Signals include TV vertical and TV horizontal with built in sync separators, 3.58 MHz color signal, 60 Hz sweep generator signal: vector B-Y function and 5 times expand. For any other frequency from DC to 10 MHz, push varispeed button and adjust the varispeed control to handle any servicing need. Specifications: Vertical: Sensitivity, 0.1V/div. to 500V/div. calibrated for direct reading of p-p volts with low-cap probe. Gain continuously variable between range positions. Bandwidth, DC to 8 MHz—3 dB; usable to 15 MHz. Risetime, 45 ns. Input volts, 5 kV p-p AC or 1 kV DC through low cap probe; 1000 v direct input. Horizontal: Sweep Speeds, 0.2 µs/div to 0.1 sec/div. 8x101/zx16/". 115 VAC. 25 lbs.



GENERAL-PURPOSE 5" SCOPE

- DC Coupled
- Takes Camera, Light Hood, Vector Inputs

5" WIDEBAND OSCILLOSCOPE



- 4-Step Attenuator
- **Edge-Lit Grating** with Dimmer
- Full Screen DC Positioning
- DC to 10 MHz Ver-tical Response

Model 460W. Vertical sensitivity: 25 mV p-p/cm. DC to 10 MHz vertical response, flat to 4.5 MHz. Easily reproduces 3.58 MHz color sync burst. Sweep: 10 Hz to 100 kHz. Plus, minus, internal, external and line-frequency sync. For 105-125 V, 50-60 Hz AC. 13x8/xx16". Shpg. wt. 28 lbs. 775U0460.....Each 227.07 4-Up....Each 179.95

PROBES: Shielded. For oscilloscopes on this page. Av. shpg. wt. 8 oz.

Stock Mfr's		Descrip-	EACH		
No.	Type	tion	1-4	5-Up	
775-2200 775-2100 775-2150	PSD PD PLC	Demodulator Direct Probe Low-Capacity	12.42 9.07 12.42	9.94 7.25 9.94	

CEi

0 0

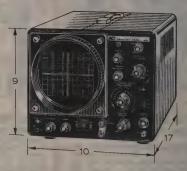
DIRECT-COUPLED 5" OSCILLOSCOPE



- 3-Stage Push-Pull Amplification
- Zener Diode Calibration
- Frequency-Compensated 4-Position Attenuator
- Fully Automatic Sync

Model 427. Highly sensitive, general-purpose scope has direct coupling throughout the vertical amplifier. Makes DC or p-p AC (or combination) measurements from 10 mV to 500 V. Trace is sharp and clean, free positioning intensity, focus, astigmatism, DC balance controls and sawtooth sweep output on from panel. Positive or negative sync (internal, external or line-frequency). Vertical response: DC to 500 kHz (+1, -3 dB); sensitivity, 3.5 mV rms/cm (10 mV p-p/cm). Horiz. response: 2 MHz to 450 kHz (+1, -3 dB); sensitivity 0.18 V rms/cm. Sweep ranges: 10-100, 100-lk, lk-10k, lbc-100 kHz. Imped: vert., 1 meg/30 pF; horiz., 10 meg/40 pF. 117 VAC. 12½ x8½ x16½.....Each 198.68 4-Up....Each 169.95

TRIGGERED SWEEP OSCILLOSCOPE



Model 1460. Solid state with triggered sweep and automatic sync. TV-H and TV-V sweep selector positions let you see two horizontal line or two vertical fields, automatically synchronized. Vector-scope capability. High intensity patterns at speeds up to 0.1 µs/cm. Displays complex TV signal or any portion, including "back porch" of horizontal sync pulse. Sync separator locks sweep. Vertical interval test signals can be locked in. Specifications: Vertical: Sensitivity, 10 mV/cm to 20 V/cm ±5%. Response: DC to 10 MHz -3 dB. Risetime, 35 ns. Max. Input, 600 V p-p. Sweep: 0.5 µs/cm to 0.5 s/cm. 9x10x17". 115/230 VAC. Less probe. 23½ lbs. 731-1460.

SOLID STATE TRANSISTOR CURVE GENERATOR

• Tests Transistors In and Out of Circuit

• Tests for "Open Base" and "Shorted Base"

Model TCG-1. Tests FET's, MOSFET's, diodes, zener diodes, tunnel diodes, other devices. Identifies unknown transistor types. Checks NPN and PNP types consecutively without changing controls or polarity switches. Tests dynamic characteristics plus collector current vs. collector voltage family or curves. Compatible with most oscilloscopes. Two TO-5 transistor test sockets. Regulated power supply. No need to interpret scope display or calculate Beta—front control panel reads Beta directly. Built-in calibrator calibrates vertical and horizontal scope and channels. With operating manual, assembly instructions for kits. 115 VAC.

766-0001.....Each 98.88 766-0002. Instruction Book. Detailed instructions.....2.12

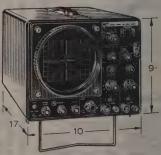
SPECIFICATIONS

COLLECTOR SUPPLY. Voltage Range, Normal Mode: ±10V, 550 Hz sawtooth and 500-ohm source impedance. Voltage Range, Breakdown Mode: ±200V, 60 Hz sine wave plus 100,000 ohm impedance.

100,000 ohm Impedance.

STEP GENERATOR. Base Current: Ranges from ±.02 mA
per step to ±0.2 mA per step. Step generator continuously
variable with front panel "Beta" potentiometer. Number of
Steps: Total of ten steps, 5 pos. and 5 neg.
INTERNAL DISPLAY CALIBRATOR. Vertical: ±0.2V. Hortzontal: ±4V. Voltages are applied to scope's amplifiers.
Produces a diagonal line display.

DUAL TRACE TRIGGERED SWEEP SCOPE



80



WHY PAY \$400 FOR AN OSCILLOSCOPE CAMERA WHEN THIS LOW-COST POLAROID® CR-9 TAKES ALL THE HASSLE OUT OF THE JOB?

- Lowest Cost Oscilloscope Camera on the Market
- Hand-Held and Weighs Less than 24 Ounces
- Really Easy to Operate
 - **Accepts Any** One of 8

• Trigger-Like Shutter Release





Delivers Distortion-Free Prints in Seconds Using Regular Polaroid Land Pack Film

MODEL CR-9. Compares in quality and legibility to pictures taken with the most expensive oscilloscope cameras! Almost anyone can turn out a high-contrast picture of a scope display in 15 seconds after only a few minutes of familiarization. There's never a need to recreate a difficult or time-consuming test. The image is sharp and clear, with virtually no distortion of the cathode ray trace or the graticule lines. And the 1:0.85 reduction ratio permits recording an entire 8x10cm format within the print area. Unit weighs less than 24 ounces, can be easily moved from one scope to another.

Order Hood Below

LAND FILM AND TIMER ACCESSORY

POLAROID TYPE 107 LAND FILM. Black-and-white film for microscope or oscilloscope camera above. 561-3107. 1-49...... Each 3.76 50-Up...... Each 3.40 POLAROID TYPE 108 LAND FILM. Color film for use with

microscope camera above. 561-3108. 1-49......Each 6.35 50-Up......Each 5.75

DEVELOPMENT TIMER. Audible-tone timer for use with microscope or oscilloscope camera above. Shpg. wt. 4 oz.

LIGHT-TIGHT HOODS FOR OSCILLOSCOPE CAMERA

Attach easily to front of lens, permitting only the light from the cathode ray tube to reach the film. Check tables

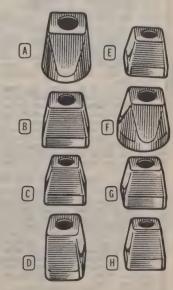
below to determine mood type needed.		
561-3306. Type 33-06. 1-24 Each 24.95	25-49Each 22.45	50-Up Each 19.95
561-3309. Type 33-09. 1-24Each 24.95	25-49Each 22.45	50-UpEach 19.95
561-3310. Type 33-10. 1-24 Each 24.95	25-49Each 22.45	50-Up Each 19.95
561-3311. Type 33-11. 1-24 Each 24.95	25-49 Each 22.45	50-Up Each 19.95
561-3312. Type 33-12. 1-24 Each 24.95	25-49 Each 22.45	50-UpEach 19.95
561-3315. Type 33-15. 1-24 Each 24.95	25-49Each 22.45	50-Up Each 19.95
561-3316. Type 33-16. 1-24 Each 24.95	25-49 Each 22.45	50-Up Each 19.95
561-3318. Type 33-18. 1-24 Each 24.95	25-49 Each 22.45	50-Up Each 19.95
Hoode may be mived for quantity prices		

LIGHT-TIGHT HOOD SELECTOR GUIDE

Simply find your oscilloscope model number in the listing below, then follow across to the column giving the Allied Stock No. Order from listing above, right:

OSCIL	LOSCOPE	HOOD			
Manufacturer	Model Number	Stock No.	Inside Dimensions	Fig.	
Tektronix	310A, 317, 321A				
Telequipment	D43		102mm dia.		
Raytheon Cossor	CME 110	561-3306	(4" dia.)	A	
Advance	Os 1000, Os 2000, Os 2000R, Os 2100	561-3309	84 x 122mm	В	
Tektronix	211		(3.3 x 4.8")		
Dumont	1050, 1051				
Hewlett- Packard	140B, 141B, 180A, 180B, 181A, 181B, 183B, AN-USM-281A, 1200 Series, 1580A	561-3310	87 x 119mm	C	
iwatsu	A, C, D		(3.4 x 4.7")		
Raytheon Cossor	CDU 110	3 4 2 2 4 5 5	The second	:	
Tektronix	422, 453A, 454A, 491		111		
Telequipment	S51, D52, D53 Series				
SE Laboratories	EM102	561-3311	87 x 127mm (3.4 x 5.0")	Do	
Dynamco	7100				
Tektronix	527, 529, 549, 561A, 561B, 564, 564B, 567 568, 647A	561-3312	96 x 120mm	E.	
Advance	Os 15, Os 25				
B&K	1460	561-3315	125mm dia.	F	
Dumont	127mm circular bezel		(4.9" dia.)		

OSCII	LOSCOPE	. 2 7	HOOD		
Manufacturer	Model Number	Stock No.	Inside Dimensions	Fig.	
Eico	427, 460W, 465W				
Hewlett- Packard	120B, 122A, 130C, 132A, 140A, 141A, 127mm circular bezel				
Lectrotech	TO-50		-		
Simpson	466				
Solartron	CD 1400	561-3315	125mm dia.	F	
Tektronix	502A, 503, 504, 519, 520, 521, 522, 541 Series 543, 544, 545A, 546, 547, 551, 555, 556, 565, 570, 575, 581, 585, 127mm bezel	200	(4:9" dia.)		
Hewlett- Packard	140B, 141B, 182A, 1700 Series				
lwatsu	8	561-3316	100 x 125mm	G	
RCA	WO-505A		(3.9 x 4.9")	_	
Solartron	1740			_	
Telequipment	54 Series, D67				
Hewlett-Pack.	1330A, 1331A, 1331C				
Philips	PM 3230, PM 3231				
Raytheon Cos.	150, 4000	561-3318	116 x 116mm	H	
Tektronix	432, 434, 7000 Series (except 7403), 5000 Series		(4.6 x 4.6")		
Telequipment	CT71				



RESISTOR DECADE BOXES



CAPACITOR ANALYZER

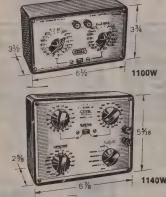
- Low Bridge Voltage
- Low 1 pF-100 pF Range
- Tests Leakage 5 to 600V
- Check Power Factor



MODEL T0-6 TEL-OHMIKE. Checks all capacitors. Five overlapping ranges of Wien bridge measure to 200 μF, with low capacity 1 pF to 100 pF range. Low bridge voltage, 1.35 for electrolytics, 2.85 for others. Checks insulation resistance of paper, micas and ceramics in 2 ranges: 10k megs and 50k megs. Tests leakage up to 600V in 5 ranges. 0-0.06-0.6-6.60 mA. Checks power factor up to 50%. Also: overload protected meter; magic eye tuber: pushbutton, range selectors. tube; pushbutton range selectors. Rugged metal case, 8% x14% x6%". Shpg. wt. 16% lbs.

926U9000 Ea. 204.04 4-Up Ea. 185.35

ECONOMICAL TEST EQUIPMENT



MODEL 1100W RESISTOR SUB BOX.
Multiples of 15, 22, 23, 47, 68, 100
ohms. Overall range, 15 ohms to 10
megs. Duty rating 500 volts. 5-way
binding posts. Less leads. 3½x6½x
3½". 2 lbs.
775-1101...Ea. 23.33 4-Up...Ea. 19.95
MODEL 1140W R-C SUB BOX. 1100W,
1120W with switching facilities for resistance, capacitance or combination
in series or parallel. Multiples of 15,
22, 33, 47, 68, 100 ohms, 15 ohms to
10 megs. Capacitance, 0001 to .22
μF, 18 steps. Open, short-circuit positions. No leads. 5½x6½x6½x2½«". 3 lbs.
775-1140...Ea. 38.53 4-Up...Ea. 32.95



MODEL 1171W RESISTANCE DECADE BOX. Resistance: 0-99, 999 ohms in 1-ohm steps with 5 decades. ½% accuracy; 1-watt resistors. Comparator position and binding posts for instant substitution of resistance values into test circuit. Current: 350 mA (0-9 ohms) to 2.5 mA (10k-100k). 12x3½x 3″. No leads. 3 lbs. 775-1171...Ea. 5255 4-Up...Ea. 44.95 MODEL 1180W CAPACITANCE DECADE BOX. Range: 100 pF to 0.111 μ F in 100 pF steps. Rated 350 WVDC continuous, 500 WVDC intermittent. Silver-mica capacitors with $\pm 1\%$ accuracy. 7 pF zero capacitance. Ceramic wafer switches; low-loss lucite terminal board; 5-way jack-type binding posts. 9x3½x5½″. Less leads. 3 lbs. 775-1180...Ea. 43.21 4-Up...Ea. 36.95 775-1180 . . Ea. 43.21 4-Up. . Ea. 36.95

CAPACITOR SUB BOX

MODEL 1120W. Precision crafted Capacitor Substitution Box offers fast, easy and accurate substitution of any one of eighteen values. Values range from 0.0001 to 0.22 µF. An ideal low-priced, yet professional, unit for the serviceman, the experimenter or the hobbyist. Useful in checking for open capacitors and in determining values needed for optimum performance in equipment. Capacitors used are mica and molded plastic rated at 400 and 600 WVDC. Accuracy, ±10%. Convenient 5-way binding post for all popular styles of lead terminals. Size, 3¼x6½x3½″. Leads are not included. Shpg. wt. 2 lbs.

775-1120.....Each 22.16

4-Up.....Each 18.95

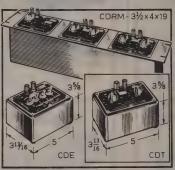


MICRONTA®



Each 7.95

CAPACITOR DECADES



Rated at 600 volts DC, and 220 volts AC. Provide a reliable and accurate source of selected, precision values for bread-boarding and substitution. Three different boxes, CDA-2, CDB-3 and CDC-3, can be easily paralleled to provide capacitances of 0 to 1.111 in 0.0001-µF steps. CDA-2 has a mica dielectric, others are olimpregnated. Last figure in Mr's Type No. indicates ±% tol. Each has chart giving exact value for all scale markings. *Indicates Aluminum Electrolytic Capacitor substitution box. 31%,x5x3%.**. 2 lbs.

Stoc	k	Mfr's	Range	μF	EACH	
No.		Type	μF	Step	1-3	4-Up
755-0	601	CDA-2	.0001- .011	.0001	17.95	16.08
	608	CDE-3		.01 1.0	19.87 33.23 19.55	18.17 30.13

R-C SUB BOX



MODEL WG-412A. Use separately, in series, or in parallel R-C combinations. 36 one-watt resistors rated from 15 ohms to 10 megs, plus eighteen 600V capacitors from 100 pF to .22 μ F. Both resistors and capacitors have 10% tolerance. Two rotary switches select values. Alligator clip leads. 6% x5% x2% "Shpg. wt. 1% lbs. 901-2415. Ea. 40.91 4-Up. Ea. 37.00

CAPACITOR ANALYST



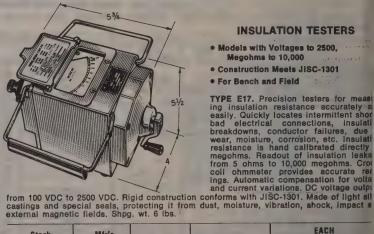
MODEL 801. For foll, mica, ceramics, eletrolytics. Tests electrolytics out-of-circular for energy storage, effective capacitance to 2000 μF. 25 pF to 100 μF. In circuit out-of-circuit for leakage to 50 meg shorts 10 pF to 200 μF (low as 25-ohr shunt); opens (low as 50-ohm shunt) dow to 25 pF. Polarity protected. Line is the supply. 5½x12¾x6¾. For 117 VAC Shpg. wt. 11 lbs.

731U0801

RESISTOR DECADES

Each permits selection of 110 values. Units of resistance may be selected from the direct-reading panel switch scale. Series connected, they cover from 1 1,111,110 ohms in 1-ohm steps. Have rotary switches with 11 positions. RD and RDB use wire-wound resistors; RD uses carbon resistors. Size, 31½6x5x5½6 Shpg. wt., 1¾ lbs.

Stock No.	Mfr's Type	Range Ohms	Ohms/ Step	EACH 1-3	EACI 4-Up
755-3630 755-3633	RDA RDB	1-110 100-	1	26.67	22.6
755-3636	RDC	10.000-	100	29.41	
		1,100,000	10,000	25.91	22.0



INSULATION TESTERS

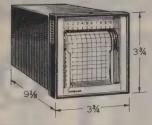
- Models with Voltages to 2500, Megohms to 10,000
- Construction Meets JISC-1301
- For Bench and Field

Stock Mfr's	Stock Mfr's Voltage Resistance	EACH			
		1-3	4-Up		
808-0502 808-0506 808-0507 808-0512	E-17-02 E-17-06 E-17-07 E-17-12	100V 500V 500V 2500V	20 Megs 100 Megs 1000 Megs 10,000 Megs	178.00 238.81 244.23 488.75	165.00 220.00 225.00 450.00
808-0515	E-17-17	Leather Car 12-ft. Conn	rrying Case ector Leads	32.50	30.00

Strip Chart Recorders

MULTICORDER CHART RECORDERS

33/4"x33/4" panel space. Dependable inkless recording system, Tautband meter movement. Records up to 30 days.



MODEL 2755 10-CHANNEL EVENT RECORDER

Records 10 separate events on inkless, pressure sensitive paper. Charts indicate when the event occurred and the precise duration of the event. Synchronous motor drive permits continuous unattended operation up to one month at 20mm/hr.; other gear boxes available. Mounts in 3.60° sq. panel hole. 115 VAC. Shpg. wt. 4 lbs. 919-2755. 115 VAC. ... Ea. 281.81 4-Up... Ea. 225.00 919-5080. Type 22380 Chart Paper. 10-channel; 20mm/hour. Pkg. of 10 rolls... Ea. 25.00 4-Up... Ea. 20.00

TEMPERATURE RECORDERS

919-2762. Model 2762. Dual channel. —40° to +60°F or +50° to 250°F. 4 lbs. **Ea. 263.02 4-Up....Ea. 210.00**

4 OR 8-CHANNEL **EVENT RECORDERS**

Simultaneous recording of 4 or 8 on-off events on the same chart. Actuator response time, 10 msec. Slide-down chart ac-



10 msec. Slide-down chart access window; thumbwheel chart advance on front panel. Specify chart speed when ordering (1/4, 1/2, 1, 2, 3, 6, 10, 12, 15, 30 or 60 inches per hour). Other chart speeds are easily obtained by using interchangeable gear box. Standard motor speed, 2 rpm; other speeds for chart speed up to 3000 inches/hour are available. Requires 24 VDC at 70 mA per channel (power supply listed below). speed up to 3000 inches/hour are available. Requires 24 VDC at 70 mA per channel (power supply listed below). Tear-off or re-roll operation. Charcoal grey finish. Includes one roll of chart paper and manual. Size: 4-channel model, 3%x55%x4\%',6", 8-channel, 65%x5%x6". Model 292-4. 4-channel. Shpg. wt. 5 lbs. 908-0391. ... Ea. 149.04 4-Up. ... Ea. 119.00 Model 292-8. 8-channel. Shpg. wt. 5 lbs. 908-0397. ... Ea. 192.88 4-Up. ... Ea. 165.00 Model 921-8 Power Supply. For 115 VAC. Wt. 5 lbs. 908-0432. ... Ea. 37.57 4-Up. ... Ea. 31.00

MINIATURE ANALOG RECORDERS

- For High-Resolution Line Monitoring
- Prints on Pressure
 Sensitive Paper
- Internal Chart Review
- · Accuracy, ±2% F.S.



Prints on pressure-sensitive paper. Internal chart review, chart access window. Accuracy ±2% of full scale (1% on special order). Chart speed: 1" per hour. Response time: 1 sec. for most units. Tear-off or re-roll operation. Scale width: 2%/6" except dual channel, 1". With one roll of paper, manual, panel mtg. hardware. 5% x3% x4%/6". "Range for each channel, Wt. 5 lbs.

AC VOLTMETER RECORDER

Stock No.	Model	RANGE	EACH	4-Up EACH
908-0679	2186	105-135/210-250 V	206.66	165.00

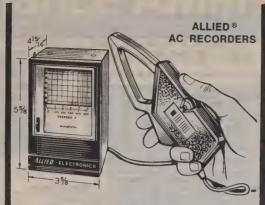
SINGLE CHANNEL DC RANGE RECORDERS

Stock				P CA	LI
No.	Model	RANGE	Ohms	1-3	4-Up
908-0324	288	0-10 μΑ	5700	169.09	135.00
908-0326	288	0-50 µA	4700	150.30	120.00
908-0328	288	0-100 μΑ	4600	144.04	115.00
908-0333	288	0-1 mA	100	149.68	119.50
908-0350	288	0-100 mV	100	1131.51	105.00

SINGLE RANGE DC VOLTAGE RECORDER

908-0804	288	0-1 volt DC	(1000	137.18	110.00
300-0004	400	U-I VOIL UL 1	1 1000	13/.10	110.00
000 0000	200	0.50 14 00	S OL /1/	427 70	440 00
908-0826	288	0-50 volts DC	/ Unms/v	113/./8	110.00

DUA	L CHA	NNEL	DC	RANG	GE RE	CORDER	RS
908-0862	291	0-1 m/	4°		00	187.88	150.00



AMMETER WITH HOOK-ON TRANSFORMER

Minigraph with hook-on transformer for measuring 60 Hz AC current. Clamp-on unit permits current measurement without breaking load line conductors. Six current ranges (0-5-10-25-50-100-250 amps) are selected by rotating a thumbwheel switch on the housing of the clamp-on transformer. The transformer is rated for indoor use only with maximum of 750 volts AC. Accuracy within 3% of full scale. Overload limiter maintains output terminal voltage below 8.5 VAC to protect meter movement. Chart speed, 1" per hour; other gear trains available. Each 168.00 Minigraph with hook-on transformer for measuring 60 Hz

MODEL 230 VOLT/AMP AC RECORDER

Rugged leather case for use in the field as well as the lab. Three switchable voltage ranges: 0-150-300-600 V at ±3% accuracy. Three switchable current ranges: 0-25-100-300 amps at ±4% accuracy. Chart speed, 1" per hour standard; other speeds available. Uses Style Q and R paper. For 115 volts, 60 Hz AC. Supplied with two rolls of chart paper, test leads, plus clamp-on transducer for current measurements without opening circuit. 908-0882. Wt. 10 lbs. Ea. 220.10 4-Up. ... Ea. 175.00

ALLIED® CHART PAPER ROLLS

2%6"x63'. *For hook-on ammeter. Box of 6 charts.

Stock	No. of Major &	Price per Box of 6				
No.	Minor Divisions	1-5	6-10	11-Up		
599-9176 599-9177 599-9195 599-9180	U-10-50 U-15-75 10-47° 4 or 8-Event	14.00 14.00 14.00 14.00	12.90 12.90 12.90 12.90	12.00 12.00 12.00 12.00		

CHART PAPER-63 FOOT ROLLS

			Per Roll	
Stock No.	Description	1-24	25-49	50 -Up
908-0001 908-0002 908-0003 908-0004 908-0005 908-0008	Style A, 50 divisions Style B, 75 divisions Style C, 65 divisions Style D, 20-20 div. dual channel Style EE, 4-8 events Style H, 40 divisions	4.69	3.75 3.75 3.75	2.50 2.50 2.50 2.50

RECORDING MULTIMETER

MODEL 604. Features 25 switch selectable ranges, inkless recording of range



MODEL 605 MULTICORDER. Inkless recording on pressure-sensitive paper. Chart speeds: 1/3/12 Inches per hour. Recording accuracy: ±2.5%. Sensitivity: 686 ohms/ volt. Ranges: DC: 0-12, 30, 60 mV; 0-3, 15, 60, 300 V; 0-15, 3, 6, 30 mA; 0-15, 1.2, 6 amps. AC: 0-6, 30, 15, 300, 600 V; 0-3, 15, 60, 300 mA; 0-1.2, 6 A. 934x434x47. 115 VAC. With test leads, two rolls paper. Wt. 5½ lbs. 919-0620. . . . Ea. 325.65 4-Up. . . . Ea. 260.00



ALLIED® MINIGRAPH CHART RECORDERS

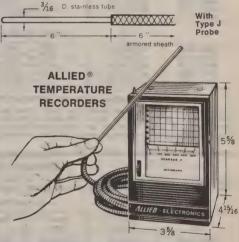
- Taut-Band Measuring Element
- Special Stylus -Inkless

For use in lab, industry, aerospace, education. Compact die-cast aluminum case. Taut-head measuring element Is highly resistant to shock and vibration. Friction free—no parts to wear down—prolongs life indefinitely. Special stylus for inkless recording on pressure sensitive paper. 2 rpm drive motor—one dot every two seconds. Access window exposes one inch per hour. Other gear trains are available for various chart speeds. Chart duration, 744 hours. Dot density per inch, 1800. Motor is rated 3 watts, 120 VAC, 60 Hz. Accuracy: DC, ±2% full scale; AC, ±3% full scale. Response time: 0.8 to 1 second (full scale). Sensitivity: 10 µA. Supplied with chart, portable feet and flush mounting hardware. 3M Nextel Blue body, charcoal door — finish almost impervious to damage. Chart paper size: 2%/5/83/; analog span, 2%/7. Slze, 5%x 35%x41%/6/7. Shpg. wt. 5 lbs.
599-0314. 0-100 µA Range. 1000 ohm armature. Ea. 115.00 599-1614. 0-150 VAC Range.

EVENT CHART RECORDER

TWO-CHANNEL CHART RECORDER

Two independent galvanometer-type systems. Records of each input are produced on a single chart with two 1½6" active width side-by-side channels. Sensitivity: 0-50 μA DC for each channel. 5400 ohms.



MINIGRAPH RECORDER

Records temperature through the use of a thermocouple probe. The probe has a 6-ft. armored sheath and a 6* stainless steel tip measuring $\%_6$ " O.D. Chart speed is 1" per hour; gears available for other chart speeds.

Stock No.	Range	EACH
599-3114 599-2012	0-500°F—with J Probe Type K (Chromel-Alumel)— Probe alone	158.00 25.05

MODEL 2144 TEMPERATURE RECORDER

Self-contained temperature recorder utilizes nickel wire sensor for accurate recordings from -100°F to +600°F. Span: 100°F minimum, 800°F maximum. Accuracy: ±2.5% of span, ±0.5% full-scale. Specify temperature span desired within the 0-300°F range. For 105-130 V, 50-60 Hz AC. Shpg. wt. 7 lbs. 90870568. 0-300°F... Ea. 300.60 4-Up... Ea. 240.00

Model 304 SST Tubular Probe. Shpg. wt. ½ lb. 908T0442......Ea. 65.13 4-Up......Ea. 52.00

908T0442......Ea. 65.13 Surface Probe. Shpg. wt. 3 oz. 908-0443......Ea. 27.56 4-Up..... Ea. 22.00

Temperature Controllers

"DIN" SIZE TEMPERATURE CONTROLLERS

Large, easy-to-read dial scale. High torque, high resolution potentiometer with long-life LED indicator light in center of set point knob. Operates from 115/230 V line, ±10%. Calibration accuracy: 1% full scale. Operating temp.: 30° to 125°F. Time proportioning output. Available

with 10 A SPDT relay, 10 A zero-switching solid-state triac output for pilot duty load. Works with either thermistor, platinum or thermocouple sensor, as indicated. 3.8 x 3.8 x 4.99" deep behind panel; 3.6 x 3.6" panel hole.

Stock Mfr's		Mfr's		Mfr's			EACH	
No.* Type	Sensor Type	Output	1-9	10-24	25-Up			
998-500N 998-501N 998-504N 998-505N 998-506N 998-507N	30-03-01 32-03-01 30-01-01 32-01-01 30-06-01 32-06-09	Thermistor Thermistor Platinum Platinum Thermocouple Thermocouple	10A Relay 10A Triac 10A Relay 10A Triac 10A Relay 10A Triac	72.05 82.10 71.25 81.35 85.00 95.10	57.40 65.35 56.70 64.75 67.70 75.75	51.80 59.00 51.20 58.45 61.10 68.34		

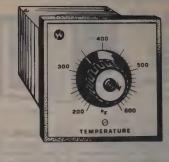
*HOW TO ORDER
To complete Allied Stock Number for the temperature range desired, insert in place of the "N" in the stock number a numeric designation (1 through 7) from the chart at right. Sensor types must match in both control and temp. range chart.

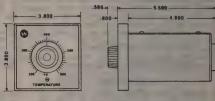
Example: 998-5002 is Type 30-03-01 control-ler with 50° to 250°F temperature range and thermistor input; 998-5007 is Type 30-06-01 with 0° to 1000° C temp. range and Type "K"

TEMPERATURE RANGE SELECTOR CHART

Stock	Temperature	Sensor	Sensor Type
No. Code	Range	Code	
1 2 3 4 5 6 7	-20° to +60°C 50° to 250°F 200° to 600°F 200° to 600°F 0° to 1000°F 0° to 1000°F 0° to 1000°C	ABCEEDF	Thermistor Thermistor Thermistor Thermistor Thermocouple, Type J Thermocouple, Type J Platinum Thermocouple, Type K

NOTE: When ordering a sensor to match your temperature controller, match the code letter in the temperature range chart (above) with the corresponding code letter in the sensor section at bottom of page.





SERIES 15 LOW-COST ON-OFF TEMPERATURE CONTROLLERS

Remote set point potentiometer; removable, external bridge board for quick temperature range changing. Switching sensitivity: 0.1° to 0.3°F. Operating ambient temp.: 0° to 125°F. Line voltage: 105-135 VAC, 50/60 Hz. Where load exceeds current switching capacity of out-

put relay, the relay may be used to control load contactors. A complete temperature control system consists of temperature controller, remote set point potentiometer, bridge board and sensor. See How to Order, below, Controller size, 4 x 4 x 2" h.; mt. 3% x 5%".

Stock	Mfr's			EACH			
	Voltage		Relay	1-9	10-24	25-Up	
998-4000 998-4001	15-00-11 15-00-12	115 230	10A 10A	SPDT SPDT	40.27 40.27	32.15 32.15	28.95 28.95

BRIDGE BOARD

Stock	Mfr's	Temperature		Sensor		EACH	
No.	Туре	Range 🥞	;	Code	1-9	10-24	25-Up
998-7035 998-7082 998-7083 998-7014 998-7016	B007-035 B007-082 B007-083 B007-014 B007-016	-20° to +60°C +50° to +250°F -10° to +120°C +200° to +600°F 0° to 1000°F		A B B C D	5.20 5.20 5.20 5.20 5.20	4.15 4.15 4.15 4.15 4.15	3.75 3.75 3.75 3.75 3.75

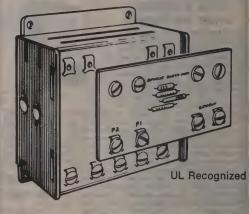
REMOTE POTENTIOMETER ASSEMBLY

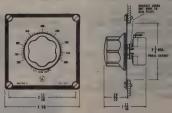
998-6040 A006-040 -20° to 998-6173 A006-173 +50° to + 998-6174 A006-174 -10° to + 998-6032 A006-032 +200° to + 998-6101 A006-101 0° to 1	20°F B	7.10 7.10 7.10 7.10 7.10	5.65 5.65 5.65 5.65 5.65	5.10 5.10 5.10 5.10 5.10
--	--------	--------------------------------------	--------------------------------------	--------------------------------------

HOW TO ORDER MODEL 15 TEMPERATURE CONTROL SYSTEM

1. Choose the controller that meets your line voltage requirements. 2. Choose bridge board with desired temperature range. 3. Choose remote set point potentiometer with corresponding temperature range. 4. Then, looking

in the code column of either the potentiometer or bridge board, select a sensor with corresponding letter code. 5. You now have a complete system. To change tempera-ture range, order additional pots, bridges and sensors.

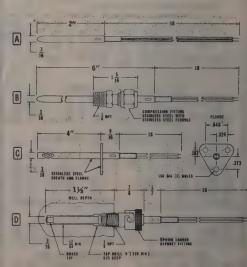




TEMPERATURE SENSORS

mistor and platinum sensors have two 18" leads. Thermocouple sensors, 5' leads. Code must match units above. High quality sensor assemblies made of 316 stainless steel, for use with temperature controllers above. Ther-

Stock			Mfr's Basic Resistance,			EACH		
No.	Type	Туре	Ohms	Code	1-9	10-24	25-Up	
998-0045	03-0045	Thermistor	300 @ 77°F	A	12.95	10.30	9.30	
998-0115	03-0115	Thermistor	3k @ 77°F	ABCD	12.95	10.30	9.30	
998-0086	03-0086	Thermistor	100k @ 77°F	C	12.95	10.30	9.30	
998-0021 998-0096	01-0021 03-0096	Platinum Thermistor	100 @ 32°F 1k @ 77°F	G	31.56 12.95	25.20 10.30	22.70 9.30	
330-0030	03-0030	1 Herrington	1 1 1 1 1 1		12.50	10.30	1 9.30	
		B ADJUST	ABLE IMMERSION	SENSO	RS		,	
998-0078	03-0078	Thermistor	300 @ 77°F	A	21.46	17.15	15,40	
998-0023	03-0023	Thermistor	3k @ 77°F	В	21.46	17.15	15.40	
998-1021	03-0021	Thermistor	100k @ 77°F	C	21.46	17.15	15.40	
998-0004 998-1004	01-0004 03-0004	Platinum - Thermistor	100 @ 32°F 1k @ 77°F	D	34.90 21.46	27.85 17.15	25.10 15.40	
336-1004	03-0004	Hemistor	1K@ // F	9	21.40	17.15	15.40	
		C	OPEN AIR SENSO	RS				
998-0005	03-0137	Thermistor	300 @ 77°F	A	21.46	17.15	15.40	
998-0117	03-0117	Thermistor	3k @ 77°F	В	21.46	17.15	15.40	
998-0116	03-0116	Thermistor	100k @ 77°F	C	21.46	17.15	15.40	
998-0031 998-0003	01-0031 03-0005	Platinum	100 @ 32°F	D	34.90	27.85	25.10	
330-0003	03-0005	Thermistor	1k @ 77°F	G	21.46	17.15	15.40	



22.40 24.40

igh performance AMPHENOL fans

IAL FAN
ERIES 760
IODEL 126



DDEL 125 xR/X

changeable with other $4^1\%_6$ " fans but with more cooling caty. Delivers 80 CFM at .15" H_2O-as much as two weaker fans. bearing construction provides twice the operating life of we bearing fans. Durable aluminum frame acts as heat sink. XL at half speed for reduced noise. Both have UL component gnition. 50/60 Hz operation. 182 model for 115V. 181 model for /.

Accessories Filter -- 760-100-45 Finger Guard -- 760-9601-43

ords 9601-06 — 30 in. 301-07 jumper cords for series connection of Multiple Fans

60 cfm

			Each				
Amphenol No.	Stock No.	1-9	10-24	25-49	50 up		
760 125XR-182-11115	612-0100	19.65	18.05	16.90	15.70		
760 125XR-181-11220	612-0120				15.70		
760 125XL-182-11115	612-0110	21.95	19.75	18.75	17.15		
760 125 XL-181-11220	612-0125	21.95	19.75	18.75	17.15		

NEW!



IAL FAN
ERIES 760

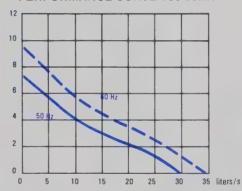
ODEL 98

one inch thin. Will fit where there isn't enough space for dard fans. Same mounting centers as standard $4^1\%6''$ fans. Ball ings and aluminum frame for longer life. UL component gnition. 50/60 Hz operation. 182 model for 115V. 181 model 220V.

Accessories
Filter – 760-9601-43
Finger Guard – 760-100-45

ords 9601-06—30 in.
601-07 jumper cord for series connection of Multiple Fans

PERFORMANCE CURVE 760 98XH



		Each			
Amphenol No.	Stock No.	1-9	10-24	25-49	50 up
760 98XH-182-11115	612-0130	21.45	19.75	18.45	17.15
760 98XH -181-11220	612-0140	21.45	19.75	18.45	17.15

terchangeability Charts			
mphenol	Rotron	IMC	Pamotor
25XR	Muffin	Boxer	4500
	Sentinel	Super Boxer	4600
	Centaur		4506
			4606
25XL - 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Whisper	Boxer	4800
			4806
26LF	Sprite	PeeWee	8500
	And the second second to the second second		8506
22VF	Major		7500
			7506



Interchangeable with 7500 and Major with economical shaded pole motor construction. Ball bearings and aluminum frame for longer life. UL component recognition. 50/60 Hz operation. 182 model for 115V. 181 model for 220V.

Accessories Filter—760-100-65 Finger Guard - 160 - 120 - 01 - 43 Cords 9601-06 - 30 in.

9601-07 jumper cord for series connection of Multiple Fans

	0	PEI	RFO	RMA	NCI	E CU	RVE	76	0 1:	22VI	F		
	.8											4	
	.7												
	.6												
120	.5												
inches H ² 0	.4												
	.3												
Static Pressure	.3						-						
Sta	.2												
	.1									1			
	.0												
			25	50	75	100	12	5 1	50	175	200	225	cfm

		Each				
Amphenol No.	Stock No.	1-9	10-24	25-49	50 up	
760 122VF-282-11115	612-0150	39.00	35.75	33.35	31.00	
760 122VF-281-11220	612-0160	39.00	35.75	33.35	31.00	



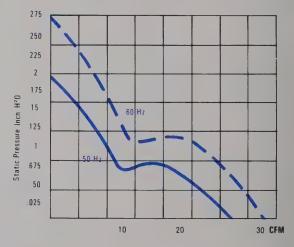
AXIAL FAN

ERIES 760

Only $3\frac{1}{8}$ " square by $1\frac{1}{2}$ " deep for high density packaging. Ball bearings and aluminum frame for longer life. Built in 12" leads. Interchangeable with 8500 and Sprite but with better pressure characteristic. UL component recognized. 50/60 Hz operation..182 model for 115V. 181 model for 220V.

No Accessories

PERFORMANCE CURVE 760 126LF



			Each				
Amphenol No.	Stock No.	1-9	10-24	25-49	50 up		
760 126LF-282-11115	612-0170	22.00	20.25	18.95	17.65		
760 126LF-281-11220	612-0180	22.00	20.25	18.95	17.65		

ACCESSORIES

30 inch plug and cord for all fans

Amph	nenol No.	Stock No.	Each 1-9 10-24 25-49 50 1.40 1.12 1.00			
			1-9	10-24	25-49	50 up
760	9601-06	612 0210	1.40	1.12	1.00	.90
760	9601-07	612 0220	1,70	1.36	1.25	1.10

Finger Guards

Amphenol No	No Stock No.		Ea	ch		
		1-9	10-24	25-49	50 up	
760 9601-43	612-0230	3.60	2.88	2.25	2.05	
760 120-01-43	612-0240	4.50	3.60	2.80	2.55	

Reusable aluminum filter

Amphenol No	Stock No.		Ea	ch		
		1-9 10-24 25-49		50 up		
760 100-45	612-0190	2.10	1.70	1.55	1.45	
760 100-65	612-0200	2.20	1.76	1.60	1.50	

Premium Grade Miniature Fans

PENTAFLO

Give maximum performance at minimum cost, ounce-for-ounce the best invest-ment for your cooling dollar. Features: all metal construction for greater durability and heat dissipation; low noise and vibration due to precision machining and balancing; patented "inside-out" motor configuration delivers greater torque and power at reduced operating temperature and provides reduced electromagnetic radiation; maintenance free bearing system of broached, sintered bronze; and impulse welded steel impellers for greater strength and reduced noise.

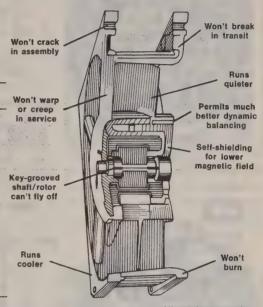


HOW TO SELECT THE OPTIMUM FAN FOR YOUR APPLICATION. Manual that gives information such as determing airflow and pressure requirements, satisfying machanical sad title. mechanical and structural requirements, and selecting for acceptable noise levels.

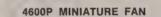
FAN CROSS-INDEX

FAMOTOR	ROTRON	HOWARD	IMC	
2110 2500S 4500C 4506A 4556 4600 4600P 4650 4700 4800A 5500 7500S* 7550S* 7556* 8500C	M-747 M-747 CT3B2 M-747BB CT-3B2 CT-3A2 CT-3A2 CT-3A2 CT-3A2 CT-3A52 M-747 M-745 103 or 113 3402S 203 or 213 6402S SP2A2 or SP2A2L	3-15-3450 3-15-3450 3-15-4450 3-15-4450 3-15-2450	Super & Tandem Boxer WS-2107F Boxer WS-2107F Boxer BS-2107F-110 WS-2107F-110 WS-2107F BS-2107F Boxer	e e
8500P 8506 8550 8556	SP2A2 or SP2AL SP2B2 SP-2A3 SP2B3	3-90-8095	MWS-2107F MBS-2107F-2 MB-2107F-3 MB-2107F-3	

All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed To Meet CSA Specifications.



All-metal construction -nine ways better!



Provides high airflow at high back pressures and low noise level. Gives extra margin required for applications in which higher packaging densities may be encountered, such as in tightly packed computers, power supplies, process controls, airborne consoles, and electronic RF/Microwave instrumentation. All metal construction.

Specifications: Air Flow: 130 CFM, SIL (Speech Interference Level): 39.8 dB, Rated Life (continuous operation): 100,000 hours @ 25°C-45,000 hours @ 50°C-20,000 hours @ 65°C. Wt. 20 oz.

Stock		EA	СН		
No	Type	1-9	10-24	25-49	50-Up
600-4601	4600P	26.15	23.45	21.50	20.40

8500P SUB-MINIATURE FAN

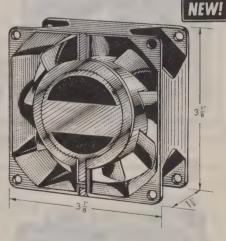
Ultra-quiet fan provides 20% more air flow in free air and almost 3 times more air flow at moderate back pressures than other comparable fans. Ideal fan for cooling portable equipment, standard 3½" rack applications and other uses where size is a limiting factor and low noise is highly desirable. Typical applications include computer terminal equipment, medical instrumentation, audio-visual equipment, bench instruments, desk top instruments, and broadcast studio consoles. Specifications: Air Flow: 43 CFM, SIL (Speech Interference Level): 28.8 dB, Rated Life (continuous operation): 100,000 hours @ 25°C, 45,000 hours @ 45°C, 20,000 hours @ 60°C. Wt. 18½ oz.

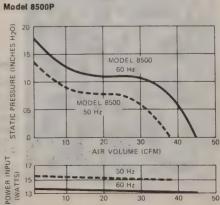
Observation 1	'Mfr's		EA	CH	
Stock No.	Type	1-9	10-24	25-49	50-Up
600-8501	8500P	25.40	22.70	20.85	19.75



.30			MODEL 4			ī
20			60 Hz		-	
10 M	ODEL 4600 50 Hz		+			
10						
0	20	40	60 80	100	120	1
	20		VOLUME (CF	100	120	3

20 60 Hz



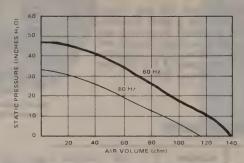


Air Cooling Fans

All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed To Meet CSA Specifications.

NEW!

5500 SERIES MINIATURE COOLING FANS



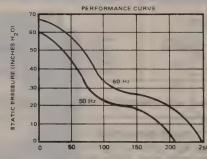
Stock	Mfr's			EA		_
No.	Туре	VAC	1-9	10-24	25-49	50-Up
600-5500 600-5550			37.15 37.15			

- Designed for Silent Performance
- · Highly Efficient Design for High Air Flow
- Stable Linear Performance Over Full Range

Highly efficient fan. Specially designed for high air flow, low noise level applications in a wide variety of electronic applications in industrial, military and commercial uses. Its unique aerodynamic design achieves the highly desirable combination of high air delivery and low acoustical disturbance. This feature coupled with a stable, linear performance within its full range of pressure capabilities makes this fan an outstanding bargain. Also has the packaging advantage of a radial-impeller combination.



7500 SERIES MINIATURE AXIAL FANS



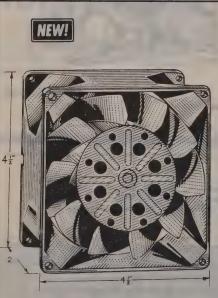
Stock	Mfr's			EA	СН	
No.	Туре	VAC	1-9	10-24	25-49	50-Up
600-7500	7500S	115	43.84	39.15	35.95	34.10
600-7506	7506	115.	68.85	61.65	56.55	
600-7550	7550S	230	43.84	39.15	24.10	22.85
600-7556	7556	230	68.85	61.65	56.55	53.65

- For Low Noise Level, Very High Air Flow
- Designed for High Temperature Applications
- Provide Extremely High Performance

Models 7500S and 7550S. Miniature axial fans. Specially designed for very high air flow, low noise applications.

Models 7506 and 7556. Miniature axial fans. Designed for high temperatures, up to 85°C. Very high air flow. For low noise applications.

These fans are designed to be used in a wide variety of electronic equipment ranging from test equipment to elevator control equipment. Uses include laboratory equipment, industrial and military communications equipment, industrial control equipment, sound systems, telephone equipment: in short these fans can be used in any industrial, military or commercial application requiring an extremely high performance fan.



2000 SERIES MINIATURE AXIAL FAN



- High Air Flow
 Low Noise Level
 High Performance
- High Performance
- Miniature Size



Model 2110. This 400 cycle miniature axial fan is specifically designed for use in aircraft or other applications using 400 cycle voltage source. Exceptionally rugged and designed for high air flow, low noise level in a broad spectrum of equipment ranging from airborne test equipment to airborne computers. In short, these fans are for any airborne applications requiring a small, rugged, high performance fan.

Stock	Mfr's			EACH			
No.	Type	VAC	1-9	10-24	25-49	50-Up 49.50	
600-2110	2110	115	70.05	58.25	52.35	49.50	

Model 2500S. High performance, miniature axial fan specially designed for high air flow, low noise applications in a wide variety of equipment ranging from portable test equipment to large capacity computers. Uses include industrial control equipment, sound systems, laboratory equipment, office and laboratory machines, communications equipment, telephone equipment and many other applications.

Stock					СН	
No.	Туре	VAC	1-9	10-24	25-49	50-Up
600-2500	2500S	115	29.35	26.25	24.10	22.85

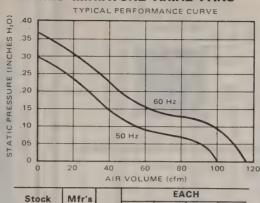
All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed to Meet CSA Specifications

4500 SERIES MINIATURE AXIAL FANS

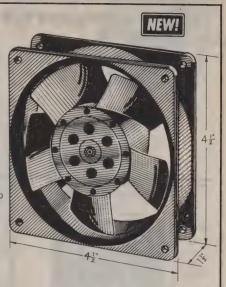
- · High Air Flow-Low Noise Level
- High Performance Fan
- Maximum Cooling Power

Model 4500C. Miniature axial fan. Delivers 117 cfm at noise level of less than 37.5 db SIL (Speech Interference Level). Specially designed for high air flow, low noise applications in a wide variety of electronic applications, such as computers, laboratory and office machines, industrial and military communications equipment, industrial control equipment, sound systems, power supplies, telephone equipment, etc.

Models 4506A and 4556. Miniature axial fans. Designed to operate at an ambient temperature of 85°C. Model 4506A is designed for high air flow, low noise applications such as diffusion furnaces and other equipment requiring fans to operate in an exhaust stream.



Stock	Mfr's			EA	СН	
No.	Туре	VAC	1-9	10-24	25-49	50-Up
600-4500	4500C	115	17.40	15.60	14.30	13.55
600-4506	4506A	115	30.85	27.60	25.35	23.95
600-4556	4556	230	30.85	27.60	25.35	23.95

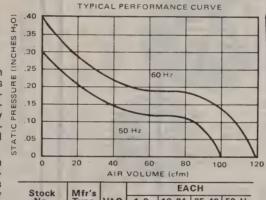


4600 SERIES SHADED-POLE MINIATURE FAN

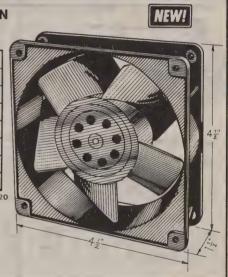
- High Performance Fan
- Maximum Cooling Power
- More Air with Less Noise

Combines the features of extended life with high air flow delivery at low noise levels. This unit is particularly suitable for delivering maximum cooling power to a wide variety of electronic equipment including computers, memory banks, power supplies, process controls, electronic instrumentation and other industrial and commercial applications.

Delivers 120 cfm at a noise level of less than 39.8 SIL (Speech Interference Level). 41/8" universal mount. Over 100,000 hours of continuous operation in normal room temperature. Heavy duty plug-in terminals (also solderable — #18 AWG wire). 115—125 VAC, 50/60 Hz, 3100 RPM, 20 watts. Wt. 21 oz.



Stock	Mfr's			EA	СН	
No.	Туре	VAC				
600-4600	4600	115	20.40	18.30	16.80	15.90
600-4650	4650	230	20.40	18.30	16.80	15.90

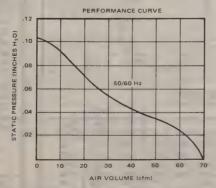


MODEL 4800 SHADED POLE MINIATURE AXIAL FAN

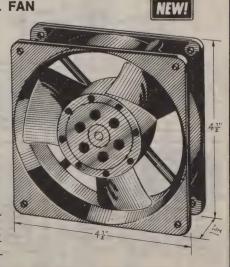
- More Air at Less Noise
- For General Cooling Purpose
- Designed for Silent Performance

Shaded pole miniature axial fan. Outstanding addition to the field of moderate air flow, extremely low-noise fans intended for general cooling purposes. Specially designed for silent performance with a noise level of less than 18 db SIL (Speech Interference Level).

Delivers 70 cfm of air, making it ideal for a wide variety of applications such as hi-fi/stereo equipment, television equipment, and medical or office equipment. Comparison with other fans will show the Model 4800 to be far superior in performance. It provides more air at less noise than any conventional metal or plastic fan of its size, and at a lower cost.

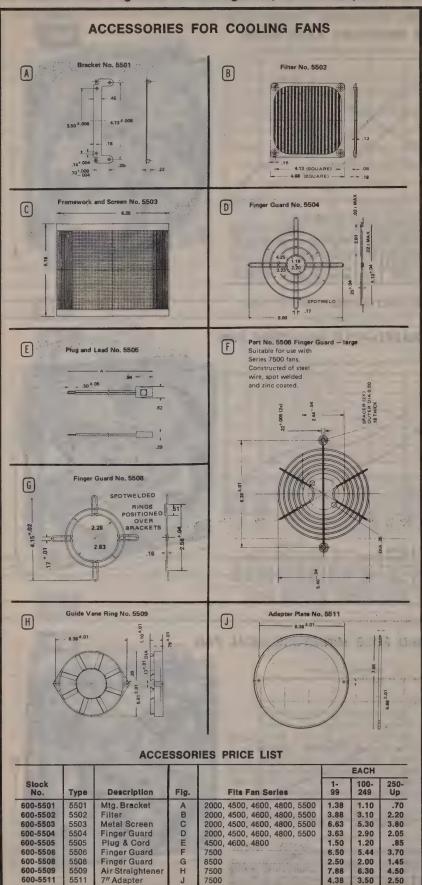


Stock	Mfr's			EA	СН	
No.	Type	VAC				50-Up
600-4800	4800A	115	19.35	17.30	15.90	14.95

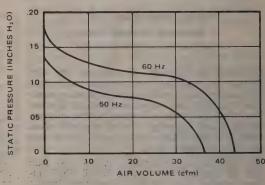


Cooling Fans and Accessories

All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed To Meet CSA Specifications.







- Compact—1/8" Thinner Than Other 31/8" Fans
- 20% More Air Flow In Free Air
- Ideal For Tight Dimension Applications

Designed for general cooling purposes. Ideal for tight dimension applications where performance and cost are prime considerations. Ultra-compact—½" thinner than other 3½" fans. Provides 20% more air flow in free air than comparative fans and almost 3 times the air flow at back pressures. Even with this high airflow capability it has only one-half the noise level, making them ideal for portable equipment or any application where size is a limiting factor and low noise is desirable. Unmatched noise level of 28.8 dB SIL. Provides more than 20,000 lubrication free hours of continuous duty at an ambient temperature of 85°C. For applications with high temperature environments such as power supplies and other equipment requiring fans to operate in an exhaust stream. Standard mounting dimensions for EIA 3½" rack panels. All metal construction ensures longer life. 3200 rpm. Wt., 18½ oz.

Stock	Mfrs.			EA	СН	
No.	Туре	VAC	1-9	10-24	25-49	50-Up
600-8500	8500	115	19.60	17.55	16.10	15.25
600-8506	8506*	115	31.60	28.30	25.95	24.60
600-8550	8550	230	19.60	17.55	16.10	15.25
600-8556	8556*	230	31.60	28.30	25.95	24.60

(*) High temperature, ball bearing versions.

Synchronous Motors and Speed Controls EA SERIES 150 IN.-OZ. UNIDIRECTIONAL

Den frame, shaded pole; accurate timing motor with clockwise rotation. Cool running, 150 inch-ounce torque at 1 rpm. Brass gears, hardened steel pinions. Temp. rise, 40°C. Continuous duty. Output shaft: ¾«" dia. x 1" long, flatted, except 3600 rpm, ¾, " dia. x 1". Case size: 3½, x2½, x1½". 3 mounting holes spaced 120°. 1¼ lbs. *Specify 1, 2, 12, 20, 30 or 60 rpm.



Stock No.	•		EA	СН	
	rpm	1-9	10-24	25-49	50-Up 11.52
811-05XX	1-60	15.96	12.77	12.13	11.52

PC-DA SERIES 120 IN.-OZ. REVERSIBLE

Positive Brake and Clutch, Basic reversible motor with positive clutch and instantaneous brake. Highly accurate, vibration and shock resistant. Starts in 20 milliseconds—stops 60 rpm shaft in ½°. Shpg. wt. 1½ lbs. *Specity 1, 2, 4, 6, 10, 20 or 60 rpm when ordering.

-09XX	1-60*	34.40	27.52	26.14	24.83

DA SERIES 150 IN.-OZ. REVERSIBLE

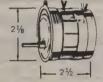
DA SERIES 150 IN.-(
Instantly reversible (SPDT
switch), highly accurate both
clockwise and counter-clockwise. Effective magnetic
shielding. Continuous duty.
Capacitor included. Torque:
150 Inch-ounces at 1 rpm.
Stainless steel output shaft,
%4" dia. x 1" long, flatted.
Case size: 2½" dia. x 2" deep.
Shpg. wt. 1 ¼ lbs. *Specify 1,
2, 4, 6, 8, 10, 12, 20, 30 or 60
rpm.



Stock No.			EA	CH	
	rpm	1-9	10-24	25-49	50-Up
811-04XX	1-60	24.88	19.90	18.91	17.96

CA SERIES 100-IN.-OZ. REVERSIBLE

SPDT switching, instantly reversible. 100 in.-oz. torque rated at 1 rpm. Capacitor incl. Stainless steel output shaft, %" dia. x 1". Case: 2½" dia.



Stock		EACH						
No.	rpm	1-9	10-24	25-49	50-Up			
811-0297 811-0298 811-0299 811-0301 811-0302 811-0391	1 2 2½ 120	21.34 21.34 21.34 21.34 21.34 21.34	17.07 17.07 17.07 17.07 17.07 17.07	16.22 16.22 16.22 16.22 16.22 16.22	15.39 15.39 15.39 15.39 15.39 15.39			
811-0394 811-0395 811-0396 811-0397	200 240 400 600	21.34 21.34 21.34 21.34	17.07 17.07 17.07 17.07	16.22 16.22 16.22 16.22	15.39 15.39 15.39 15.39			

REVERSIBLE INSTRUMENT MOTORS

Synchronous—Available in Geared or Direct Drive Model

Geared or Direct Drive Model

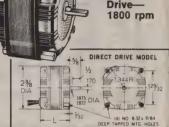
For continuous duty applications requiring high reliability, compact size and high output torque. Motors are totally enclosed. Torque: gear train rating, 250 oz.-In. at 1 rpm. Gearing: combination "helical" and "spur." Temperature rise: 40°C. Rotation: reversible, with 3 color-coded leads; capacitor included. Shaft size: stainless steel, ¾ " dia. x "long, flatted on geared models; ¾ " dia. x %" long, flatted on direct drive. Size: geared, 2¾ " dia.: direct, 2¾ " square. Mounting: geared, 2 of the 4 frame screws are extended for face mounting; direct drive, four 8-32 tapped mtg. holes. For 115 VAC. Model-T Reversible Motor. High torque—9 oz.-In. @ 300 rpm; 1620 oz.-In. @ 1 rpm. Rise: 40°C. Contact Allied for prices, delivery on Model-T Motors.

Stock	Mfr's	RPM	Torque,	Lgth.,	EACH		Lgth., EACH	
No.	Type	nrm	OzIn.	In.	1-9	10-24	25-Up	
811-1220 811-1221 811-1222 811-1223 811-1224	2535 2563 2536 2537 2538	1 1.5 2 3 4	250 200 150 100 85	2 ¹⁷ / ₃₂ 2 ¹⁷ / ₃₂ 2 ¹⁷ / ₃₂ 2 ¹⁷ / ₃₂ 2 ¹⁷ / ₃₂	54.86 54.86 54.86 54.86 54.86	43.89 43.89 43.89 43.89 43.89	41.70 41.70 41.70 41.70 41.70	
811-1226 811-1228 811-1229 811-1230 811-1231	2451 2543 2546 2547 2552	6 10 15 15 25	95 72 20 48 12	3½32 3½32 2½32 3½32 3½32 2½32	56.75 56.75 53.57 56.75 52.29	45.40 45.40 42.86 45.40 41.83	43.13 43.13 40.72 43.13 39.74	
811-1232 811-1233 811-1234 811-1235 811-1239	2553 2554 2555 2557 2562	25 30 30 60 300	29 12 27 15 2.9	3½32 2½32 3½32 3½32 3½32 2%	54.48 52.29 55.48 55.48 52.34	44.38 41.83 44.38 44.38 41.87	42.16 39.74 42.16 42.16 39.78	

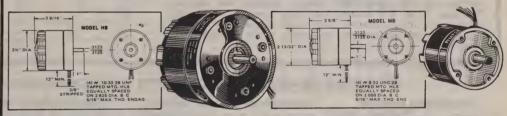
	CT		

811-1240	2588	1800	0.6	23/16	34.54	27.63	26.24

7.230 - 500 498 -Popular **Geared Model Direct** Drive-



HIGH TORQUE HYSTERESIS-SYNCHRONOUS MOTORS



Precision hysteresis-synchronous motors for accurate speed operation. Inverted rotor design for superior angular velocity characteristics and greatly reduced flutter in all magnetic tape applications. Sealed ball bearings, lifetime lubrication. Temperature rise of only 40°C even under full load conditions. Fully reversible; capacitor included. Dimensions: Model MB, 21½2″ dia. x 2½″ long; Model HB, 3½″ dia. x 3¾.″ long. Mountings: Model MB, (4) #8-32 UNC-2B tapped holes equally spaced on 2.000″ dia. B.C., ½% max. thread engagement; Model HB, (4) #10-32-2B UNF holes equally spaced on 2.625″ dia. B.C., ½% max. thread engagement. Both have ½x1″ stainless steel shaft. 120 VAC. Shpg. wts.: MB, 2 lbs.,; HB, 4 lbs.

SPECIFICATIONS FOR MODELS MB AND HB

Model and	To	rque, Ozl	n.	Temp. Rise,	HP	
Speed	Locked Rotor	Pull- in	Pull- out	Full	Rating	Watts
MB-1800 RPM HB-1800 RPM	6 23.5	5.25 16.8	5.50 17.0	40°C 40°C	1/100 1/35	30 70

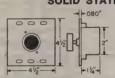
STOCK NUMBERS AND PRICES

Stock	Mfr's	Speed,		EAG	H	
No.	Type	RPM	1-4	5-9	10-24	25-Up
811-1200	MB	1800	67.08	53.66	50.98	48.43
811-1210	HB	1800	87.21	69.77	66.28	62.97

SOLID STATE INDUSTRIAL MOTOR SPEED AND FAN SPEED CONTROLS

5-AMP MOTOR SPEED CONTROL

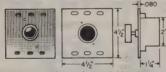




Model DJ-5. For control of universal AC-DC motors or

10-Up Each 14.95 5-9..... Each 11.96

FAN SPEED CONTROL



Model FS-5. Provides continuously variable fan and blower speed, from Full to any desired low speed. For use only with shaded pole, permanent split capacitor and universal (AC-DC) motors. Installs in single gang electrical wall box. Handles 5 amps maximum (motor nameplate rating). Built-in trimmer for setting speed to prevent stalls. Solid state. 120 VAC. 2½x4½x1¾6″.

847-8004. 1-4

Each 14.95

Each 11.96

1G-AMP MOTOR SPEED CONTROL





MOTOR SPEED CONTROLS

Varies the speed of any universal AC-DC motor-driven tool, from 0 rpm to full speed without loss of power. For use with universal AC-DC and DC series motors only; may also be used on electric clutches and brakes requiring DC voltage from 0-85 V from 120 V input. Three-position switch: off/variable/full speed. Fused for circuit protection. MK-II and MK-III portable models are designed for the handyman or hobbyist; clip onto belt, wall, power tool. Other models are for Industrial and professional use in factory, laboratory or in the field. All models have heavy duty 3-wire receptacle for voltage output; heavy duty vinyl 3-wire grounding input cord set with grounding plug. Rugged all-metal housings.

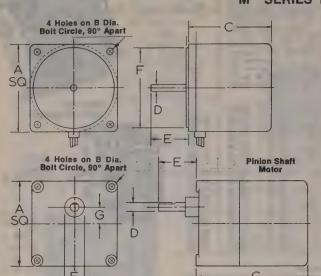
Stock No.	Mfr's Type	AC Input	Maximum Motor Nameplate	Approx. Max.	Approx. Max. Drill	EA	СН
140.	1,500	Volts	Rating	HP	Size, In.	1-9	10-Up
847-8006 847-8007 847-8009 847-8010	MK-II MK-III MK-10 MK-15	110-125 110-125 110-125 110-125	5 amps 10 amps 10 amps 15 amps	0.4 0.8 0.8 1.2	1/4. 3/8 1/2 1/2 1/2 8/6	17.58 28.58 43.98 63.78	14.06 22.80 35.18 51.02

_	
THE	
	Tune I W I I H

Type	W	L	Н	
MKH, H	23/4"	4"	21/2"	
MK5, 250-5	5"	5"	31/2"	
MK10	5"	5"	21/2"	
MK15	5"	5"	245"	

Direct Drive/Gearhead Motors

"M" SERIES DIRECT DRIVE MOTORS



Precision industrial duty motors. Modular design reduces replacement and inventory costs. Numerous speed and torque combinations from 1/15 to 1/375 H.P. available from stock. Permanently lubricated, electronically selected ball bearings. Rabbeted joints and bushed lead wire openings form totally enclosed die cast aluminum motor housing. Class "A" or better insulation materials. Instantly reversible, 115 V, 60 Hz AC.

- Feature Modular Design Construction
- 1/15 to 1/375 Horsepower Available from Stock
- Permanently Lubricated Ball Bearings

808-0111 SM652 1/375 Synchronous 1800 1.5 6 808-0076 HM6S2D1 1/375 Dual Speed Synchronous 1800/3600 0.75 6 808-0177 IM6S33 1/250 Induction 1500 3.5 6 808-0177 IM6S32 1/250 Dual Speed Induction 1500/3000 2.0 6 808-018 IM16S3 1/250 Variable Speed W/Control 100-1500 2.7 6 808-0066 RM6S4 1/200 Induction W/Brake 1450 4.0 6 808-015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0128 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	41.25
808-0176 IM6S3 1/250 Induction 1500 3.5 6 808-0177 IM6S3D1 1/250 Dual Speed Induction 1500/3000 2.0 6 808-0178 IM76S3 1/250 Variable Speed W/Control 100-1500 2.7 6 808-0066 RM6S4 1/200 Induction W/Brake 1450 4.0 6 808-0015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	CE 12
808-0177 IM6S3D1 1/250 Dual Speed Induction 1500/3000 2.0 6 808-0178 IM16S3 1/250 Variable Speed W/Control 100-1500 2.7 6 808-0066 RM6S4 1/200 Induction W/Brake 1450 4.0 6 808-0015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM3S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	65.13
808-0178 IMT6S3 1/250 Variable Speed W/Control 100-1500 2.7 6 808-0056 RM654 1/200 Induction W/Brake 1450 4.0 6 808-0015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	39.08
808-0066 RM6S4 1/200 Induction W/Brake 1450 4.0 6 808-0015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	54.28
808-0015 HM8S5D2 1/150 Dual Speed Synchronous 1800/3600 1.8 8 808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	108.55
808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	43.52
808-0129 SM8S10 1/75 Synchronous 1800 7.5 8 808-0188 IM8S12D6 1/60 Dual Speed Induction 1600/3200 5.0 8	73.81
	47.76
000 0142 IMOCIE 1/60 Industina 1000 12 5 0	65.13
808-0143 IM8S15 1/50 Induction 1600 13.5 8	45.59
808-0181 IMT8S15 1/50 Variable Speed W/Control 100-1500 7.6 8	130.26
808-0024 HM10S15D7 1/50 Dual Speed Synchronous 1800/3600 5.6 10	119.41
808-0084 RM8S20 1/35 Induction W/Brake 1550 20.4 8	49.93
808-0156 SM10S20 1/35 Synchronous 1800 11.2 10	84.67
808-0210 IM10S30 1/25 Induction 1600 27.8 10	82.50
808-0220 IM10S30D15 1/25 Dual Speed Induction 1600/3200 13.6 10	108.55
808-0216 IMT10S30 1/25 Variable Speed W/Control 100-1500 16.5 10	162.83
808-0091 RM10S40 1/15 Induction W/Brake 1500 39.6 10	86.84

DIMENSIONS CHART (Direct Drive/Gearhead Motors)—Inches

Frame	Body Dia. A	Bolt Circle B	Body Lgth. C	Shaft Dia. D	Shaft Lgth. E	Pilot F	Shaft Offset G
6	2.36	2.756	2.56	3/16	0.87	2.126	0
6G	2.36	2.756	3.62	1/4	1.04	0.472	0.394
8	3.15	3.701	2.95	1/4	1.26	2.874	0
8G-1	3.15	3.701	4.25	5/16	1.34	0.709	0.591
8G-2	3.15	3.701	4.49	5/16	1.34	0.709	0.591
8G-3	3.15	3.701	4.84	5/16	1.34	0.709	0.591
10	4.02	4.724	4.06	5/16	1.69	3.701	0
10G-1	4.02	4.724	5.67	3/8	1.26	0.945	0.787
10G-2	4.02	4.724	6.02	3/8 3/8	1.26	0.945	0.878

"M" SERIES GEARHEAD MOTORS WITH INTERCHANGEABLE GEAR ASSEMBLIES

INDUCTION MOTORS

Low starting current. May be started, stopped and reversed continuously with low inertia loads. May be stalled at full rated voltage for short periods without damage. Smooth, quiet, relatively efficient. Speed changes slightly with change in torque load. Continuous duty rated.

Stock No.	Mfr's Type	H.P.	EACH
808-0174	IM6P3	1/250,	39.08
808-0191	IM8P15	1/50	45.59
808-0209	IM10P30	1/25	82.50

INDUCTION/BRAKING MOTORS

Built-in braking device. Same advantages as Type IM at left but will stop and reverse direction more rapidly without "coasting." Intended for duty cycles of 30 minutes or less requiring precise positioning or rapid direction reversal with holding brake action.

Stock No.	Mfr's Type	H.P.	EACH	
808-0065	RM6P4	1/200	43.42	
808-0083	RM8P20	1/35	49.93	
808-0090	RM10P40	1/15	86.84	

SYNCHRONOUS MOTORS

Synchronous type motors have same advantages as Type IM induction motors at left but with constant speed and lower efficiency. Designed for use where precise speeds and/or timekeeping properties are required. Available in three horsepower ratings as listed below.

Stock No.	Mfr's Type	H.P.	EACH
808-0110	SM6P2	1/375	41.25
808-0128	SM810	1/75	47.76
808-0155	SM10P20	1/35	84.67

VARIABLE SPEED AC MOTORS

Feature 15:1 speed ratio with constant torque, tachometer-generator, feed-back regulated solid state control unit. Instantly reversible. Extremely smooth and quiet operation. AC design eliminates brush replacement and increases life expectancy more than tenfold.

Stock No.	Mfr's Type	H.P.	EACH
808-0170	IMT6P3	1/250	108.55
808-0180	IMT8P15	1/50	130.26
808-0215	IMT10P30	1/25	162.83

HOW TO ORDER INFORMATION

The four motor types listed above and the gear assemblies listed below may be ordered separately or in combination to meet speed and torque requirements. To Order Separately. MOTORS. Order by Type; Stock No., and H.P. according to the listings above. GEAR ASSEMBLIES. Order by Type and Stock No. from Chart B below. To Order Complete Unit (Motor and Gear Assembly). Locate speed and torque requirements in Chart C below under motor type desired (Induction, Ind/Braking, Synchro-

nous, Variable AC). Order corresponding Gear Assembly from Chart B by Type and Stock No. Also order appropriate motor from Chart A by Type, Stock No., and H.P. (Motors listed in Chart A are the same as motors listed above. They are restated in Chart A for your ordering convenience. EXAMPLE: To order Induction motor and Gear Assembly for 5.2 rpm and 140 oz. in. torque order Gear Assembly 6G300. Stock No. 808-0299 and Induction motor IM6P3, Stock No. 808-0174, 1/250 H.P.

A. Motor Types

Stock	Mfr's	Horse-	Description	Price
No.	Type	power		Each
808-0174	IM6P3	1/250.	Induction	39.08
808-0065	RM6P4	1/200	Induction/Braking	43.42
808-0110	SM6P2	1/375	Synchronous	41.25
808-0170	IMT6P3	1/250	Variable AC	108.55

808-0191	IM8P15	1/50	Induction	45.59	+
808-0083	RM8P20	1/35	Induction/Braking	49.93	
808-0128	SM8P10	1/75	Synchronous	47.76	
808-0180	IMT8P15	1/50	Variable AC	130.26	

808-0209	IM10P30	1/25	Induction Induction/Braking Synchronous Variable AC	82.50
808-0090	RM10P40	1/15		86.84
808-0155	SM10P20	1/35		84.67
808-0215	IMT10P30	1/25		162.83
000 0223	1111110100	1/23	Variable AC	102.03

B. Gear Assemblies

No.	Type	Each
808-0304	-6G1800	16.82
808-0302	-6G900	16.82
808-0301	-6G450	15.75
808-0299	*6G300	15.75
808-0296	-6G180	15.75
808-0293	-6 G 90	14.11
808-0285	≠-6G60	14.11
808-0273	6G30	. 14.11
808-0260	-6G15	13.03
808-0256	-6 G 6	13.03

808-0465	8G1800	16.94
808-0448	8G900 "	16.94
808-0390	8G450 ·	14.30
808-0380	8G300 ~	23.88
808-0367	8G180	23.88
808-0350	8G90	21.71
808-0338	8G60	21.71
808-0326	8G30	19.54
808-0312	8G15	19.54
808-0309	8G6	19.54
	100100	
808-0048	10G180	54.28

808-0048	10G180	54.28
808-0046	10G90	54.28
808-0045	10G60	54.28
808-0040	10G30	44.43
808-0044	10G15	49.93
808-0043	10G6	49.93

C. Speed (rpm) and Torque (Oz. In.) Specifications

										-
	Indu	ction	Ind./I	Braking	Sync	ronous	Variat	le AC		
	Speed	Torque	Speed	Torque.	Speed	Torque	Speed	Torque	Frame	
	0.9	140	0.9	140	1	140	.0683	140	6G	
	1.7	140	1.7	140	2	140	.11-1.7		6G	
	3.4	140	3.4	140	4	140	.22-3.3	140	6G	
	5.2	140	5.2	140	6	140	.33-5.0	140	6G	
	8.6	140	8.6	140	10	140	0.6-8.3	140	6G	
	17	140	17	140	20	100	1.1-17	140	6G	
	26	140	26	140	30	67	1.7-25	121	6G	
	52	78	52	. 90	- 60	34	3.3-50	60	6G	÷
	103	46	103	52	120	20	7-100	35	6G	
	258	18	258	21	300	8	17-250	14	6G	
	0.9	600	0.9	600	1	600	.0683	600	8G-3	٠.
	1.7	600	1.7	600	2	600	.11-1.7	600	8G-3	
	1 0.4	600	3.4	600	4	600	.22-3.3	600	8G-3	
	5.2	600	5.2	600	6	600	.33-5.0	600	8G-3	
	8.6	600	8.6	600	10	600	0.6-8.3	600	8G-2	
	17	600	17	600	20	543	1.1-17	550	8G-2	
,	26	600	26.	600	30	362	1.7-25	366	8G-2	
	52	325	52	. 492	60	181	3.3-50	183	8G-1	
	103	163	103	247	120	91	7-100	92	8G-1	2
	258	,65	258	- 98	300	36	17-250	. 36	8G-1	
	8.6	1500	8.6	1500	10	1500	0.6-8.3	1500	10G-2	
	17	1500	17	1500	20	1108	1.1-17	1195	10G-2	
	26	1340	26	1500	30	737	1.7-25	795	10G-2	
	52	723	52	1029	60	398	3.3-50	429	10G-1	
	103	359	103	515	120	199	7-100	215	10G-1	

Higher Quantity Prices Available On Request

286 • ALLIED

Slo-Syn[®] Stepping Motors

HOW TO SELECT A STEPPING MOTOR

The following procedures should be followed to select a motor and drive:

(1) Load Characteristics: Determine torque and moment of inertia characteristics of load that motor will drive: Torque = Force x Radius; Moment of Inertia Weight x Radius2/2.

(2) Using gears and pulleys: torque should be increased or decreased by the overall ratio of gears or pulleys. Load inertia should be increased or decreased by the square of the ratio.

- (3) Determine speed and step angle desired.
- (4) Select motor which produces necessary step angle and torque at step rate required.
- (5) Select drive (translator, index or module) that provides speed range

RESISTORS FOR AC MOTORS

Fixed, wirewound resistors for use with capacitors (below) in phase shifting networks for motors listed in table at left (except RC types which have network built In). U.L. Recog. Tolerance ±5%. Av. shpg. wt. 2 oz.

Stock	Mfr's	Use With			EACH		
No.	Type	Motor	Ohms	W	1-9	10-24	25-Up
930-1104 930-1105 930-1108 930-1111	R-SS25 R-SS50 SS150 R-SS250/SS400	SS25 SS50 SS150 SS250/SS400	500 400 250 150	5 25 25 50	5.15 5.15 5.15 6.58	4.12 4.12 4.12 5.26	2.75

CAPACITORS FOR AC MOTORS

Can-type electrolytics for use in phase shifting networks for motors listed at left (except RC types which have network built in). Rated at 330 volts, AC. Av. shpg. wt. 2 oz.

Stock	Mfr's	Use With		EACH		
No.	Туре	Motor	μF	1-9	10-24	25-Up
930-0400 930-0402 930-0408 930-0412	C-SS25 C-SS50 C-SS150/TS50 C-SS250/SS400	\$\$25 \$\$50 \$\$150/T\$50 \$\$250/\$\$400	.75 2.25 3.75 6.5	7.97 11.25 8.90 11.25	6.38 9.00 7.12 9.00	3.83 5.85 4.50 5.85

"HS" SERIES PRECISION STEPPING MOTORS



Designed for phase-switched DC stepping. Makes 200 steps of 1.8° per shaft revolution. Each step is accurate within $\pm 3\%$ non-accumulative. Can be used with Slo-Syn controls and drives or with custom drives which provide programmed acceleration designed and built by the user. With proper circuitry, these motors may be operated at speeds greater than 1000 steps per second without missing steps.

BIFILAR MOTORS



Each motor contains twice the windings of a 3-lead motor for better L/R time constant and performance. Uses simple drive circuitry or the recommended Slo-Syn drives. Makes 200 steps of 1.8° per shaft revolution, except TS prefix types which have 5° step angle. Step accuracy, $\pm 5\%$ non-accumulative. High torque at high stepping speeds.

TRANSLATORS

Translators are pulse-to-step converters for use with appropriate bifilar synchronous/stepping motors connected for incremental stepping. It converts low-level signal pulses or square waves into the correct 4-step switching sequence needed to step a Slo-Syn motor. Translator Module is a plug-in PC board with logic capabilities for stepping a Slo-Syn motor in increments of 1.8°. Translators available from ALLIED on special order only.

SYNCHRONOUS/STEPPING MOTORS

May be used as DC stepping motors and start at full-rated torque. Slo-Syn synchronous motors are permanent magnet types (AC) having instant start, stop and reverse characteristics and a basic shaft speed of 72 rpm with 60 Hz applied. Adaptable for use as a DC stepping motor or incremental positioning device that can be stepped 200 times per revolution of the motor shaft. Negligible overshoot; no ratchets or detents are used. Single-pole. 3-position switch gives complete forward, reverse and "off" control because motor has only three leads. Starts or stops in less than 0.25 second or, approximately, 1.5 Hz. No need for mechanical or electrical braking; stops in less than 5° of motor shaft rotation. Starting and operating currents are nearly identical; no excessive inrush current when motor is turned on. Lubricated-for-life, sealed ball bearings. Motor specifications in table below are at 50/60 Hz.

INSTANT REVERSING SYNCHRONOUS/STEPPING MOTORS

Stock	Mfr's	Max.	Size	Torque	EACH					
No.	Type	Amps	L x Dia.	Ozin.	Max. Moment of Inertia	1-9	1-9 10-24 2 2.65 58.12 2.63 50.10 5.15 60.12 2.71 82.17			
930-1155 930-1161 930-1185 930-1210 930-1220 930-1265	SS25 SS50 SS150 SS250 SS400 TS50	0.1 0.3 0.4 0.6 0.6 0.3	2½x2½s 2½x3¾ 4½x4¼ 4½x4¼ 6¾x4¼ 3¹½ex3¾	25 50 150 250 400 50	0.15 0.5 1.5 3.0 4.5 0.25	72.65 62.63 75.15 102.71 157.82 97.70	50.10 60.12	52.00 45.00 54.00 73.80 113.40 70.20		

MO93

"M" SERIES STEPPING MOTORS

"M" SERIES STEPPING MOTORS
Represents the most advanced permanent magnet stepping motor design available. Offers the most complete range of both torque ratings and size. Provides the highest torque per pound and torque-to-inertia ratios. Can be driven at rates above 20,000 steps per second with minimum of power output. Has Class B insulation, may be operated at ambients from -40° to +65° C. Continuous duty temperature, 65° C. Stepping increment, 1.8° using a 4-step input sequence. Step accuracy, choice of either ±3% or ±5%. Eight-step input sequence gives 0.9° stepping increment. Chart below gives off-the-shelf drives for motors listed. Custom drives can be designed and built by user if desired. For torque vs. speed characteristics and complete ratings and specifications, request the complete catalog.

HS SERIES PRECISION STEPPING MOTOR

		Recommended		1	Holding	Mo	tor	Shaft		EACH						
Stock	Mfr's	Slo-Syn Drives	DC	Amps/	Torque	Dia.	L.	Dia.	Wt.	1-	10-	25-				
No.	Type	See Table A	Volts		Ozin.	In.	in.	In.	Lbs.	9	24	Up				
930-1050	HS25†	A, B, C, E	5.4	1.5	70	2.22	3.25	.250	2	150.30	120.24	108.00				
BIFILAR MOTORS																
930-1158	SS25-1001	A, B, C	11.8	0.44	28	2.72	2.25	.250	1¼	113.98	91.18	81.90				
930-1195	SS150-1010	A, B, C	10.0	1.25	250	4.19	4.44	.375	6½	118.99	95.19	85.50				
930-1225	SS400-1021	A, B. C	5.3	3.4	500	4.19	6.59	.500	121/4	200.40	160.32	144.00				
930-1226	SS1800-1007	A, B, C	11.5	3.9	3000	6.5	8.63	.625	45	463.42	370.74	333.00				
930-1266	TS25-1008‡	A, B, C	5.4	1.5	40	2.22	3.25	.250	2	43.84	35.07	31.50				
930-1267	TS50-1001‡	A, B, C	3.0	4.0	65	3.25	3.69	.375	43/4	43.84	35.07	31.50				
	M SERIES STEPPING MOTORS															
930-9102	M061-FD08	D	1.3	3.9	53	2.22	2	.250	1¼	87.68	70.14	63.00				
930-9111	M093-FD11	D		5.5	450	3.25	5.07	.375	7¾	118.99	95.19	85.50				

\$TS25-1008 and TS50-1001 have 5° stepping increment. Thas ±5% step accuracy.

A-ST1800B Translator.
B-STM1800 and STM1800V Translator Modules
C-SP1800B-5 Preset Indexer.

TABLE A—KEY TO DRIVES IN TABLE ABOVE
D—STM1800C and STM1800CV Translator Modules.
DV Translator Modules

E—HPR400R-5 High Speed Preset Indexer.

"SYNCHRON" MOTORS

"SYNCHRON." Hysteresis timing motors. Sealed gear case, brass gears and one-piece steel pinions. Two-piece field structure, shaded poles. Mount in any position. At 1 rpm or more, motor can be stalled without damage. Double bearing on rotor shaft, reduction train and output shaft. K12RC, 4 watt "K" coil, 20-oz.-in. torque at 1 rpm. 112RC, 3 watt "i" coil, 30-oz.-in. torque at speeds shown. All have Type 12 flatted, ½" dia. x ¾" shaft. Clockwise. Two .142" dia. mtg. holes spaced 1.875". —40° to +140°F. 110V, 60 Hz AC. Specify speed. Type K12RC, 1, 2, 3, 4, 6, 10, 30, 50, 60 rpm; Type 112RC, 1, 2, 4, 10, or 12 revolutions per hour. Average shpg. wt. 12 oz. more, motor can be stalled without damage. Double bearing



Stock No.	Mfr's	Speed	EACH									
	Туре	(Specify)	1-9	10-24	25-49	50-Up						
304-00XX 304-01XX	K12RC I12RC	1-60 rpm 1-12 rph	5.93 6.10	4.74 4.88	3.60 3.76	3.15 3.25						

"900" SERIES MOTORS

SERIES. Self-starting hysteresis-synchronous with positive direction. Instrument-type gear train, thicker gears match increased torque. Extra-heavy phenolic first gear for low noise level. Patented, hardened steel Synchron rotor ring; improved Class coil construction. Silicone life-time lubrication. Mounts any position. Stall continuously without damage. 8 watts, 98-oz.-in. torque at 1 rpm. Flatted shaft, %'' dia. x %'' long. %'' dia. x %'' long bearing. Porous bronze bearing insert. Double bearings. Clockwise. 110V, 60 Hz AC. Specify speed: 1, 2, 4, 6, 10, 20, 30 or 60 rpm. †Type 9GA933 RP. 12 oz.

Stock	Mfr's	Speed	EACH								
No.	Туре	(Specify)	1-9	10-24	25-49	50-Up					
804-090X 804-09XX	900† 900†	1-2 rpm 4-60 rpm	15.16 12.18	13.48 9.74	12.57 8.69	11.77 7.60					

HOW TO ORDER MOTORS

Insert desired rpm (for K12RC and 900) or rph (for I12RC) in place of XX in Stock No. EXAMPLE: K12RC motor at 1 rpm is 804-0001.

21/8

Push Button, Round and Pointer Bar Instrument Knobs

KNUBS			
(a) 15 to 2 to	KNOB	INDEX: Or work	Description Page
Calibrated Control Plates H. H. Smith	Description Page Flexible Shaft H. H. Smith. 289 Instrument Harry Davies 288 Locking Raytheon 291 Microvernier Control Raytheon 290	Description Panel Bearing Assembly H. H. Smith 289 Panelrama Raytheon 291 Pushbutton and Rotation Harry Davies 288 Self-Locking Raytheon 291	Shaft Fittings H. H. Smith. 289 Standard (Round and Pointer) Raytheon 291 Standard Color-Keyed Tactile Raytheon 291 Standard Control Alco 289 USECO 289

B B I A	B	B C	B	B	B	B
B H	J A	B K	B	B	B	B
R 4100	B S 4100	B B T 4103	A A B	B	B	19/32 47/39/64 39/64

PUSHBUTTON AND ROTATING KNOBS

A full line of high quality knobs for use throughout the industry. This style selection will meet most commercial and industrial applications. Choose from grooved, round, pushbutton, pointer bar. All are quality plastic knobs of sturdy, long lasting phenolic plastic, with a high gloss finish. Mounting keys: *¼" diameter molded hole and

slotted set screw; \$-44'' diameter female brass insert and slotted set screw; $†-6-32 \times 74$ threaded female brass insert; $$$^+$-self$ locating friction fit for use on flat wire shaft $_{0.050} \times _{187}$; $$$^+$-44''$ diameter insert, slotted set screw and white vinylite pointer. 4100-Q white vinylite pointer is \$\$4''; 4102-Q is 154''; 4103-W is 156''.

0. 1	345.7	Equiv.	P1	Size	e, In.		EAC	Н		Stock	Mfr's	Ec
Stock No.	Mfr's Type	No.	Fig.	Α	A B		100- 499	500- Up		No.	Type	
543-1450 543-1475	1450 1475	h	A* A*	11/18	13/32	.13	.11	.09		543-1912 543-1914	1913-C 1914	64
543-1700 543-1400	1700 1400		B*	3/4	19/32	.22	.18	.15		543-1920 543-1921	1920 1920-C	64
543-1470 543-2120	1470 2110		C*	15%	19/32	.23	.18	.15		543-1930 543-1931	1930 1930-C	65
543-2100 543-2150	2100 2150		D §	11/4	5/8 9/16	.37	.30	.25		543-1919 543-1918	1919 1919-C	65
543-1550 543-1600	1550 1600		F*	11/8	11/18	.19	.15	.12	:	543-2300 543-2301	2300 -A	29
543-1610 543-1910	1610 1910	645-1L	G*	29/32 3/4	19/32	.23	.18	.15		543-2350 543-2351	2350 A	29
543-1911 543-1913	1910-C 1913	645-3L 647-1L	H§ H*	3/4 11/8	1/2.	.56	.45	.38		543-1509 543-1500	1510 1500	40

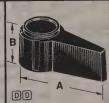
Stock	Mfr's	Equiv. Type	Fig.	Size	, in.	EACH				
No.	Туре	No.	riy.	Α	В	1- 99	100- 499	500- Up		
543-1912 543-1914 543-1920 543-1921 543-1930	1913-C 1914 1920 1920-C 1930	648-1L 648-3L 653-1L	1* H* H*	11/8 3/4 11/4 11/4 11/2	5/8 1/2 3/4 3/4 1/8	.46 .41 .38 .46	.36 .33 .29 .36 .30	.30 .28 .24 .30 .25		
543-1931 543-1919 543-1918 543-2300 543-2301	1930-C 1919 1919-C 2300 1 2300-A	653-3L 657-1L 657-3L 292-1L 292-3L	H § K* K § M* M §	1½ 1¼ 1¼ 1¼ 1¼	7/8 5/8 5/8 5/8 5/8 5/8	.48 .39 .51 .15	.38 .31 .41 .12 .19	.32 .26 .34 .10		
543-2350 543-2351 543-1509 543-1500	2350 2350-A 1510 1500	293-1L 293-3L 400-1L	L* L§ N* P*	2 2 3/4 11/8	5/8 5/8 2/18 2/18	.27 .37 .27 .20	.21 .29 .21 .16	.18 .24 .18 .13		

	Stock	Mfr's	Equiv.	Fig.	Size,	ın.		EAC	H
	No.	Type	Type No.	riy.	A	В	1- 99	100- 499	500- Up
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	543-1520 543-4100 543-4102 543-4103 543-4110	1520 4100 4102 4103 4100-Q	308-3 309-3 310-3	P* R% R* S#	1½ 1½ 1½ 15% 2¾ 1½	3/4 5/8 3/4 7/8 11/16	.47 .42 .48 .70 .64	.38 .33 .37 .56 .51	.31 .28 .32 .47 .42
	543-4112 543-4113 543-4104 543-4105 543-4108	4102-Q 4103-W 4104 4105 4108	309-PTR 310-PTR 380-3L 381-70L		15/8 23/8 11/2 13/4 21/18	13/16 15/16 13/18 13/18 13/18 29/32	.68 .92 .91 .93	,55 .74 .72 .75 .81	.46 .62 .60 .62 .68
	543-3008 543-1770 543-2190 543-1775	3008-A 1770-F 5149-A 1775	78-3 9205-30	W* X† Y‡ Z‡	1 1/4 31/64 1/2 39/64X 47/64	3/4 1/2 51/64	.34 .09 .11	.27 .07 .09	.22 .06 .07

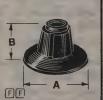














SLEEK STYLED INSTRUMENT KNOBS

A versatile series of round and pointer type knobs molded of sturdy, long lasting phenolic plastic with a high gloss finish. All knobs are available in 3 types of caps. Regular high gloss finish as shown in figure AA; lined with a spun silver cap as shown

in figure BB; or topped with a decorative spun silver disc as shown in figure CC. All molded hole and set screw to fit standard $\frac{1}{4}$ " dia. shaft. *Special features denoted SDL—decorative spun silver disc, lined; or SCL—decorative spun silver cap, lined.

	Stock Mfr's Fin Size, In		, In.		EACH						Size	In.		EAUH			Canal	Mfr's	Ein.	Size	, 111.		MUI		
Stock No.	Mfr's Type*	Fig.	Α	В	B 1- 100-500- No. Type*				В	1- 99	100- 499	500- Up		Stock No.	Type	Fig.	A	В	99	100- 499	500- Up				
543-1200 543-1201 543-1202 543-1210 543-1211	1200 1200-SDL 1200-SCL 1202 1202-SDL	AA BB CC AA BB	1/2 1/2 1/2 1/2 1/4 3/4	% 8/8 8/8 8/8 8/8 8/8	.24 .58 .50 .26	.19 .46 .40 .21	.18		543-1230 543-1231 543-1232 543-1240 543-1241	1206 1206-SDL 1206-SCL 1208 1208-SDL	AA BB CC AA BB	1 1/8 1 1/8 1 3/8 1 3/4 1 3/4	3/4 3/4 3/4 13/18	.34 .63 .67 .40 .72	.54	.45		543-1260 543-1261 543-1262 543-1270 543-1271	1212 1212-SDL 1212-SCL 1214 1214-SDL	FF FF DD DD	1 1/4 1 1/4 1 1/6 1 1/6 1 1/8	11/18 11/18 11/18 11/16 5/4 5/8	.26 .61 .53 .34 .69	.21 .48 .42 .27 .55	.18 .40 .35 .23
543-1212 543-1220 543-1221 543-1222	1202-SCL 1204 1204-SDL 1204-SCL	CC AA BB CC	3/4 . 1 1	5/8 11/18 11/18 11/18	.57 .29 .55 .59	.45 .23 .44 .47	.38 .19 .37 .40	>1 ·	543-1242 543-1250 543-1251 543-1252	1208-SCL 1210 1210-SDL 1210-SCL	CC EE EE	13/4	13/18 5/8 5/8 5/8	.76 .29 .63 .59	.23	.19	41.5	543-1272 543-1280 543-1281 543-1282	1214-SCL 1216 1216-SDL 1216-SCL	DD GG GG GG	1% 1% 1% 1%	5/8 5/6 5/6 5/6	.65 .34 .69 .65	.52 .27 .55 .52	.43 .23 .46 .43

18

Knobs, Shafts and Accessories

PLASTIC KNOBS WITH ALUMINUM TOPS

















Feature aluminum inlay on top, black plastic body, molded-in brass insert, self-locking set screw.

PKS-90B. Natural anodized aluminum dial skirt with black arrow indicator; PKS-90B-10 has 0-10 numerals with 30° spacing. Spun aluminum inlay.

PKA-50B. Has slip-proof knurl. Extended skirt with white hairline indicator. Spun aluminum inlay.

PKB-70B. Large knobs have deep flutes. White indicator line on the skirt. Spun aluminum inlay.

PK-1100, PKP-1109B. Matching series of fluted knobs. PK-1100 available for ½ or ½" shaft. PKP-1109B has pointer bar. Spun aluminum inlay.

PKS-1105B-10. Has 0.9 graduations spaced at 36° on aluminum dial skirt. Spun aluminum inlay.

Stock	Mfr's.	Knob	Shft.	EACH						
No.	Туре ,	Dia.	Size	1-24	25-99	100-499	500-Up			
700-6606 700-6608	PK-50B PK-70B	.591 .736	· 1/4" 1/4"	.43 .52	.25 .30	.23 .27	.21			
708-6655 700-6656	PKS-90B PKS-90B-10	.900 .900	1/4" 1/4"	.94 1.02	.55 .60	.50 .54	.47 .51			
700-6634 700-6637	PKA-50B PKB-70B	.583 .750	1/4" 1/4"	.60	.35 .40	.32	.30			
700-6626 700-6616	PK-1100-1/4B PK-1100B	.643 .643	1/e" 3/4"	.60	.35 .35	.32	.30			
700-6851 700-8657	PKP-1109B PKS-1105B-10	.870 .562	1/4" · 1/4"	.94	.55 .55	.50	.47			

MACHINED ALUMINUM KNOBS FOR EVERY APPLICATION





















One-piece aluminum. Have set screw.

K-500, K-700 Standard Series. Has indicator line.

KS700 Skirt Anodized Knob. Matches K-500 series. Solid aluminum skirt. KN-500-1/2, 500, 700 Straight Knurl. Harline indicator. Natural or Black.

KN-701 Black Arrowhead. Arrowhead indicator engraved on knurled body.

KNS-701 Arrowhead. Engraved arrowhead on natural aluminum skirt.

KHF-700 Deluxe. Saw-cut indicator.

KC_500-10 Miniature. Has numerals 0-9.

KR-1. Converts knob with 1/4" shaft hole to fit 1/8" shaft.

- *Complete Suffix Number of Allied Stock Number for Knob Color and Finish when Stock No. ends in X. Table shows options available.
- 1-Natural; Black Indicator
- 2—Black; White Indica 3—Gold; Red Indicator

971-0153 971-0101

4-Natural, Black Top; Black Indicator 5-Black, Natural Top; White Indicator

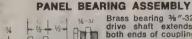
	Add					EAC	Н	
Stock No.	Color Suffix*	Mfr's, Type	Knob Dia.	Shft. Size	1- 24	25- 99	100- 499	500- Up
700-310X 700-311X 700-312X	1,3 1,2,3 1,2,3	K-500-1/4 K-500 K-700	.430 .430 .655	- ½ - ½ - ¼	1.58 1.58 1.75	1.26 1.26 1.40	.90 .90 1.00	.79 .79 .88
700-341X	1,2	KS-700	.650	1/4	2.45	1.96	1.40	1.22
700-330X 700-329X 700-331X 700-331X	1,2 1,2 1,2 4,5	KN-500-% KN-500 KN-700 KN-700	.445 .445 .695	%	1.85 1.85 1.93 2.45	1.48 1.48 1.54 1.96	1.05 1.05 1.10 1.40	.76 .76 .80
700-3309 700-3319 700-326X 700-322X	5 5 1.3 1.2	KN-701 KNS-701 KHF-700 KC-500-10	.695 .695 .590 .275	7/4 1/4 1/4 1/6	1.93 2.98 1.70 2.63	1.54 2.38 1.34 2.10	1.10 1.69 .96 1.50	.80 1.48 .83 1.31
700-3388	.KR-1 Shaft	t Reducer			.27	.15	.14	.13

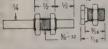
ROUND ALUMINUM KNOBS -5% → B Ideal for Receivers, Test Equipment Round aluminum knobs. For use on receivers, test equipment, hi-fi systems—any electrical equipment. All have straight knurl except Type 310-20, diamond knurl. All fit 1/4" shaft. Have anodized aluminum finish. With 6-32 set screws, except Type 310-20 which has 8-32 set screws. 2 oz. EACH Stock No. Mfr's Fig. Type

1.02 .90 1.09

Allied Electronics offers fast shipment of in-dustrial quantities at OEM price discounts. To assure the fastest and most accurate service, please specify manufacturer's type number and Stock Number on your order. Contact the nearest Allied Electronics facility for information on prices and delivery on quantities larger than shown. See page 3 for complete list of Allied offices, from coast-to-coast.

2.23 1.96 2.36

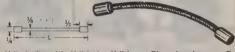




Brass bearing 3/8"-32 thd. 1/4" drive shaft extends through both ends of coupling. Overall shaft length: 148–3", 149–6". Panel bearing only: 119 for 14" shaft, 184 for 16" shafts. Wt. 2 oz.

Stock	Mfr's.	Description	EACH						
No.	Type		1-99	100-499	500-Up				
920-0148 920-0149	148 149	Assembly Assembly	.59	.48	.40				
920-0119 920-0104	119	Bearing Bearing	.23	.18	.15				

STURDY FLEXIBLE 1/8" SHAFTS



1/8" shafts with 1/4" hubs 1/2" long. Phosphor bronze. For connecting out-of-line shafts. Provides up to 90° angularcontrol with no backlash. Shpg. wt. 2 oz.

Stock	Mfr's	Lgth.	EACH							
No.	Type	(In.)	1-24	25-49	50-99	100-Up				
920-0151	151	3	1.12	.90	.75	.64				
920-0152	152	6	1.27	1.02	.85	.72				

SHAFT FITTINGS



Couplings for extending shafts; extenders for decreasing or increasing shaft diameter and length. *Insulated fiber; †Brass, nickel-plated. 1 oz.

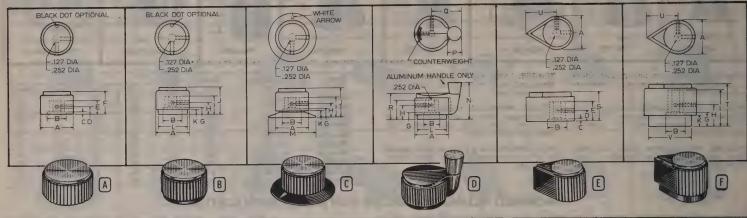
			0)ime	nsio	ns		E/	ACH	
Stock No.	Mfr's Type	Fig.	(inches) A B C D				1-9	10- 49	50- 99	100- Up
920-0180 920-0120 920-0140	1801 1201 140°	E	1/4 1/4 1/4	1/4 1/4 1/4	1/32 7/18 7/18	3/4 3/4 3/4	.59 .45 .45	.48 .36 .36	.40 .30 .30	.34 .25 .25
920-0131 920-0189 920-0150	131† 189† 150†	FFF	% % ¼	1/4 1/4 1/4	1/2 1/4 1/2	¾ ¾ 1¼	.45 .53 .59	.36 .42 .48	.30 .35 .40	.25 .30 .34
920-0130 920-0160 920-0162	130° 160† 162†	11-11-11-	1/4 1/4 1/4 1/6	Y ₄ Y ₄ Y ₄	1/2 1/2 1/2	1%	.59 .53 .53	.48	.40 .35 .35	.34 .30 .30

Designer Series and Microvernier Knobs

DESIGNER SERIES ROUND, CRANK AND POINTER KNOBS

Figure A is round; B has round-ring skirt; C, round-dial skirt; D, crank; E, pointer; F, pointer-ring skirt. These Raytheon designer series knobs are quality controlled to give your product that custom look. Modern sunburst effect is produced by aluminum caps on knobs, protected by baked-on epoxy for a real mirror finish. Contrasting black bases are molded of high-impact, long-lasting polycarbonate. Corrosion-resistant aluminum inserts for maximum strength. Provided with two set screws: 4-40 UNC-3A on

all 70 series and ½" shaft models; 8-32 UNC-3A on all others. Designer series knobs meet the following specifications: Torque, 25 inch pounds; moisture resistance, 10 days; temperature range, $-65^{\circ}\mathrm{C}$ to $+125^{\circ}\mathrm{C}$. *Prefix number indicates diameter: 70-34''; 90-1''; 125-11'4''; suffix G indicates matte (dull) finish, all other knobs have mirror finish. Exact dimensions delineated in Table below.



		Shaft			EA	CH	
Stock No.	Mfr's Type*	Dia.	Fig.	1- 99	100- 159	200- 499	500- Up
904-5422 904-5423 904-5427 904-5432	DS70-1-2G DS70-1-3 DS90-1-2 DS125-1-2G	.252 .190 .252 .252	AAAA	1.50 1.67 1.67 2.07	1.20 1.34 1.34 1.66	.85 .95 .95 1.17	.74 .83 .83 1.02
904-5435 904-5436 904-5437 904-5441 904-0123	DS70-2-2 DS70-2-2G DS90-2-2 DS70-3-1 DS70-3-2	.252 .252 .252 .127 .252	B B C C	1.72 1.80 2.05 1.92 1.40	1.38 1.44 1.64 1.54 1.12	.97 1.02 1.16 1.08 .93	.85 .89 1.01 .95
804-5443 804-5444 804-5445 904-5446 904-5447	DS70-3-2G DS90-3-2 DS90-3-2G DS125-3-2 DS125-3-2G	.252 .252 .252 .252 .252	00000	1.80 2.00 2.02 2.37 2.42	1.44 1.60 1.62 1.90 1.94	1.02 1.13 1.15 1.34 1.37	.89 .99 1.00 1.17 1.20

		Shaft			EA	CH				Shaft		EACH			
Stock No.	Mfr's Type*	Dia.	Fig.	1- 99	100- 199	200- 499	500- Up	Stock No.	Mfr's Type*	Dia. In.	Fig.	1- 99	100- 199	200- 450	500- Up .
904-5448 904-5454 904-5455 904-5456	DS125-6-2 DS70-4-2 DS70-4-2G DS90-4-2	.252 .252 .252 .252	D E E E	3.97 1.62 1.67 1.95	3.18 1.30 1.34 1.56	2.25 .92 .95 1.10	1.97 .80 .83 .96	904-5457 904-5461 904-5462 904-5463	DS90-4-2G DS70-5-2G DS90-5-2 DS90-5-2G	.252 .252 .252 .252	Here	2.00 1.87 2.10 2.17	1.60 1.50 1.68 1.74	1.13 1.06 1.19 1.23	.99 .93 1.04 1.04

DIMENSIONS FOR DESIGNER SERIES CONTROL KNOBS (FIGURES A, B, C, D, E, F)

	A	В	C	D	E	F	G	H		J	K		M	N	P	Q	R	S	T	U	٧
	+.030					土				±.				±	±	. 1	±.	土	±	+.025	
series	010	min	min	max	min	.030	min	max	min	.030	max	max	max	.050	.025	max	.030	.030	.030	لشففا	max
DS70	.700	.485	.026	.187	.405	.590	.188		.568	.780	.187	.630	1.150	-		_		.590		.680	1.000
DS90	.900	.640	.114						.730			.845	1.525		=		-	.735	.970	.885	1.345
DS125	1.250		.114	.260	.455	.620			.605	.785	.175	1.185	1.837	1.350			850	1,-	-	_	_
DS175	1.750	.750					.320	.489	.740					1.758	.780	1.527	1.07	U —	-		

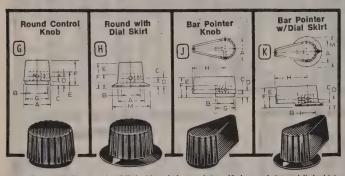


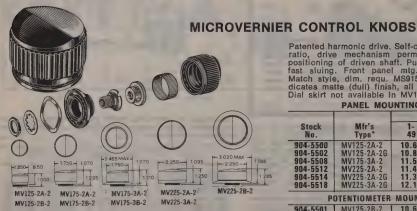
Fig. G., round; H, round w/dial skirt; J, bar pointer; K, bar pointer w/dial skirt. Acrylonitritebutadiene-styrene (ABS). Lusterless finish. All knobs contain metal bushings. Two set screws: 4-40 UNC-3A, 1/8" shaft models; 6-32 UNC-3A, all other models. Shaft diameter: 1/4", except (†) 1/6". *Prefix 407-3/4" dia.; 409-7/8" dia.; 412-11/4"; Suffix colors: K1, black; K3, beige, K7, blue-gray.

STANDARD SERIES KNOBS

				EACH							EACH	
Stock No.	Mfr's Type*	Fig.	1- 99	100- 199	200- Up		Stock No.	Mfr's Type*	Fig.	1- 99	100- 199	200- Up
904-5381 904-5383 904-5384 904-5385 904-5386	407R1K1† 407R2K1 407R2K3 407R2K7 409R2K1	G G G	.72 .67 .67 .67	.58 .54 .54 .54 .62	.41 .38 .38 .38 .44	300 p. 1	904-5394 904-5395 904-5397 904-5398 904-5401	407D2K7 409D2K1 412D2K1 412D2K3 409P2K1	HHHHH	.82 .92 .92 .92 .82	.66 .74 .74 .74 .66	.46 .52 .52 .52 .46
904-5388 904-5389 904-5390 904-5392 904-5393	412R2K1 412R2K3 407D1K1† 407D2K1 407D2K3	G G H H	.75 .75 .92 .82 .82	.60 .60 .74 .66	.42 .42 .52 .46 .46	A.C.	904-5405 904-5407 904-5408 904-5409	407PD2K1 409PD2K1 409PD2K3 412PD2K1	K K K	.92 1.02 1.02 1.12	.74 .82 .82 .90	.52 .58 .58 .63

DIMENSIONS FOR 400 SERIES CONTROL KNOBS (FIGS G, H, J, K)

series	A	B min	C min	D maz	E	.030	G max	H max	J max	K max	M max
407 409 412	.720 .875 1.250	.520 .660 1.041	.120 .120 .120	.290 .290 .290	.625 .625 .625	.813 .813 .813	.640 .800 1.170	1.120 1.375 2.000	1.540 1.540	.500 .500	1.050 1.270 1.710



- Harmonic Drive for Precise Fine Tuning or Zero Set
 40:1 Tuning Ratio. 1:1 Ratio for Fast Sluing
 Entire Mechanism Contained in Front Panel Knob—
 Eliminates Need for Expensive Gear Assemblies.
 Positive Drive with Zero Backlash

Patented harmonic drive. Self-contained 40:1 tuning ratio, drive mechanism permits precise angular positioning of driven shaft. Push in on control for fast sluing. Front panel mtg. Meet MIL-K-3926; Match style, dim. requ. MSS1528. *Suffix "G" Indicates matte (dull) finish, all others mirror finish. Dial skirt not available in MV125.

PANEL MOUNTING TYPE

		EACH						
Stock	Mfr's	1-	50-	100-				
No.	Type*	49	99	Up				
904-5500	MV125-2A-2	10.60	9.80	8.35				
904-5502	MV125-2A-2G	10.82	9.70	8.25				
904-5508	MV175-3A-2	11.52	10.65	9.00				
904-5512	MV225-2A-2	11.43	10.55	8.95				
904-5514	MV225-2A-2G	11.35	10.45	8.90				
904-5518	MV225-3A-2G	12.19	11.25	9.55				

	POTENTIOMETER	MOUNTI	NG TYPE	
904-5501		10.60	9.80	8.35
904-5503		10.82	9.70	8.25
904-5507		10.85	10.00	8.50
904-5509		11.52	10.65	9.00
904-5513		11.43	10.55	8.95
904-5517		12.27	11.35	9.65
904-5519	MV225-3B-2G	12.19	11.25	9.55



Write. Phone or Wire Allied Electronics for Larger Quantity Prices

Standard and Locking Knobs STANDARD SERIES ROUND AND POINTER KNOBS



		Shaft			EA	CH	
Stock No.	Mfr's Type	Dia.	Fig.	1- 24	25- 99	100- 299	300- Up
904-5000 304-5001 904-5011 904-5002 904-5014	70-1-1 70-1-16° 70-1-26 70-1-3 90-1-26°	.127 .127 .252 .190 .252	AAAAA	1.32 1.42 1.50 1.30 1.20	1.06 1.14 1.20 .86 .80	.75 .80 .85 .73	.65 .70 .74 .69
904-5036 904-5040 904-5056 904-5067 904-5081	225-1-26* 70-2-1 175-2-26* 225-2-26* 70-3BL-26*	.252 .127 .252 .252 .252	A A B B C	2.37 1.42 2.25 2.40 4.82	1.90 1.14 1.80 1.92 3.86	1.34 .80 1.27 1.36 2.74	1.17 .70 1.11 1.19 2.39
904-5102 904-5112 904-5135 804-5136	125-3CB-2G 175-3-2 125-6-2 125-6-2G°	.252 .252 .252 .252	0000	1.82 2.57 4.07 4.12	1.46 2.06 3.26 3.30	1.03 1.46 2.31 2.34	.90 1.27 2.02 2.04
904-5137 804-5141 804-5154 904-5156 904-5158	175-6-2 225-6-2G° 90-4-1G° G90-4-2G°† 70-5-1G°	.252 .252 .127 .252 .127	DD#EF	4.67 4.70 1.63 1.50 1.60	3.74 3.76 1.30 1.20 1.28	2.65 2.66 .92 .85 .90	2.31 2.33 .80 .74

EXPLANATION OF TYPE NUMBERS

DIAMETER TYPE STYLE SHAFT SIZE FINISH

Diameter: 50–½"; 70–¾"; 90–1"; 125–1½"; 175–1¾"; 225–2½". Type: 1—Plain Round; 2—Skirted Round; 3—Dial Skirted Round; 4—Unskirted Pointer; 5—Skirted Pointer; 6—Crank; 7-Plain Bar Pointer; 8—Dial Skirted Bar Pointer. Style: BL—Backlighted Skirt; CB—Concentric Base. Shaft Hole Size: 1—.127"; 2—.252"; 3—.190"; 4—.267"; 5—.377". Finish: None—Mirror Finish; G—Matte Finish.

ROUND	ROUND RING SKIRT	ROUND DIAL SKIRT	CRANK (1)	POINTER	SKIRTED POINTER
WHITE DOT OPTIONAL . 127 DIA . 252 DIA	WHITE DOT OPTIONAL, 127 DIA. 252 DIA	.127 DIA 252 DIA	COUNTERWEIGHT 252 DIA	127 DIA 252 79A	R A A
B CD	T H KG	K G	G . B .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	252 DIA
A	B	C		E	F

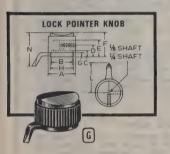
Hi-impact polycarbonate with corresion-resistant alumi-

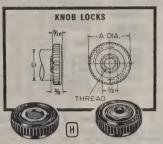
UNC-3A on 50, 70 Series and 1/6" shaft models; 8-32 UNC-3A on others, *Meets MIL MS91528C, †Gray.

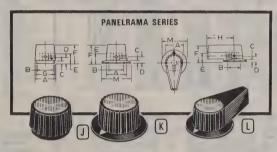
KNOB DIMENSIONS FOR STANDARD SERIES KNOBS (FIGS. A, B, C, D, E, F)

Series	+.030 010	B min	C min	D max	E min	£.303	G min	H max	min	±.030	K	L max	M max	±.050	P ±.025	Q max	R ±.025 005	S
70	.700	.485	.026	.187	.405	.610	.188	.369	.568	.782	.187	.680	1.150				.680	1.000
90	.900	.640	.114	.260	.520	.790	.320	.484	.730	1.010	.235	.845	1.525				.885	1.345
125	1.250	.750	.114	.260	.455	.700	.250	.427	.605	.850	.175	1.185	1.837	1.350	.580	1.133		
175	1.750	.750	.114	.260	.520	.850	.320	.489	.740	1.070	.240	1.690	2.468	1.758	.780	1.527		
225	2.250	.750	.114	.260	.520	.875	.320	.489	.740	1.095	.240	2.185	3.020	1.782	.780	1.777		

LOCKING, PANELRAMA AND SELF-LOCKING KNOBS









GENERAL SPECIFICATIONS

Fig. G. Standard Series Knob Lock Pointer Knob. High impact polycarbonate with aluminum insert for maximum strength. See explanation of Type Numbers above. Figure H. Knob Locks. Black standard, Used only with round knob (Fig. A above), round-ring skirt knob (Fig. B above), or knob lock pointer (Fig. G). Thread #%-32. Figures J, K, L. Panelrama Series. Fig. J. Round Knob; Fig. K, Round Knob, Dial Skirt; Fig. L, Bar Pointer, Dial Skirt, High-impact acrylonitrite-butadiene-styrene with Black matte finish capped by an epoxy-coated

aluminum disk. Metal shaft inserts and two setscrews. Figure M. Self-Locking Mechanism. Round Knob, Ring Skirt. Used when settings must be maintained under shock and vibration. Better than friction-brakes. Knobs mechanically lock the shaft. A simple push and turn locks settings without backlash and with infinite resolution. Mechanism engages with mounting nut which fastens to %-32 or ½-32 standard bushings. In Black Mirror Finish.

		Shaft			EAC	H	
Stock No.	Mfr's Type	Dia. In.	Fig.	1- 24	25- 99	100- 299	300 Up
904-5173	90-1LK-2G	.252	`G	1.82	1.46	1.03	.90
904-5185	KL701#		H	1.55	1.24	.88	.76
904-5186	KL701G#		H	1.65	1.32	.93	.81
904-5192	KL901G#		Н	1.85	1.48	1.05	.91
904-5208	PS7R2K1R	1/4	J	.72	.58	.41	.35
904-5209	PS6D2K1R	1. 1/4	K	.82	.66	.46	.40
904-5212	PS12D2K1	. 1/4	K /	1.02	.82	.58	.50
904-5214	PS7PD2K1R		L	.90	.72	.51	.45
904-5227	PT70-2-2	.252	M	15.41	12.27	11.00	9.75

DIMENSIONS (FIG. G.)

series	+.030/	010	B	Cmin	D max	
90	.90)5	.640	.320	.437	
E	F ±.030	G	H	L max	N max	
.680	.958	.235	.845	.968	1.310	

DIMENSIONS FOR PANELRAMA SERIES (FIGS. J, K, L)

Series	+ .025 005	B	C	D	E min	F ±.030	G	H max	J	K max	M
PS6	.625	.458	.120	.290	.625	.813	.558				.925
PS7	.720	.520	.120	.290	.625	.813	.640	1.120			1.050
PS12	1.250	1.041	.120	.290	.625	.813	1.170	2.000	1.540	.500	1.710

DIME	DIMENSIONS (FIG. M)											
series	A	B max	. C min									
70	.730	.425	.620									
D	E	F	G									
max	max	max	max									
.830	1.150	.460	.950									

DIMENSIONS /FIG MY

STANDARD SERIES COLOR-KEYED TACTILE KNOBS

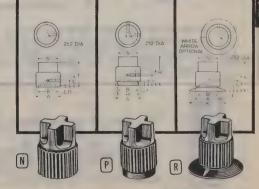
Figure N, Round; Fig. P, Round-Ring Skirt; Fig. R, Round-Dial Skirt. Specially shaped and colored tops are added to these Standard Series knobs for instant identification: Intensity, blue; Tune, orange; Dimmer, white; Gain, red; Focus, violet; Range yellow. High-impact polycarbonate with corrosion-resistant aluminum inserts. Two set screws are provided: 4-40 UNC-3A on 70 series and 8-32 UNC-3A on 90 series. Tactile tops meet MIL MS91528. WHEN ORDERING SPECIFY COLOR: black, blue, orange, white, red, violet, yellow.

*For more information see Explanation of Type No's above. Shaft diameter: .252 inches.

			EACH						
Stock No.	Mfr's Type	Fig.	1-	25- 99	100- 299	300- Up			
904-5240 904-5242 904-5244 904-5245	70-1-2G 70-2-2G 70-3-2G 90-3-2G	N P R	1.45 1.50 1.67 1.75	1.16 1.20 1.34 1.40	.82 .85 .95	.71 .74 .83			

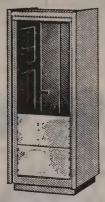
DIMENSIONS FOR STANDARD SERIES TACTILE SHAPE KNOBS (FIGURES N, P, R)

Ì	series	+.030 010	B	C	D	E min	F	G	H	min	J	K	R ±.020	\$ ±.050
	70	.700	.485	.026	.187	.405	.188	.369	.680	.568	.187	1.150	.630	1.075
	90	.900	.640	.114	.260	.520	.320	.484	.845	.730	.235	1.525	.812	1.375



ALLIED • 291

Series 2000 Upright **Cabinet Racks**





All-welded frame with 14-gauge steel members; 18-gauge steel door, sides and top. "U" braces welded to sides of frame. Front panel mounting rails tapped 10-32. Rear rails pierced 9-23. Base bracket for casters. Completely assembled. *Panel space. See note below.

Mfr's	Sto	k No.		Ht.	P.S.*	Wt.,			
Type	RB	GT	GD	In.	In.	Lbs.	1-4	5-9	10-Up
E-2001 E-2002 E-2004		3958 3968	3972	30½ 40¾ 44¼ 61¾ 70½	21 31½ 35 52½ 61¼	125 150 155 205 219	167.75 207.50 219.02 256.51 284.57	134.00 166.00 175.22 205.20 227.66	115.52 142.89 150.82 176.64 195.96
	736F3979 736F4010		4008	79½ 44¼	70 35	240 165	316.13 242.96	252.90 194.32	217.70 167.27
E-2013	736F4017 736F4027 736F4030	4024	4023	51¼ 70½ 79¼	42 61 ¹ / ₄ 70	187 235 265	255.76 315.46 350.45	204.61 252.37 280.36	176.12 217.24 241.33

INCLINED PANEL RACKS WITH SOLID SIDES AND DOOR

Positioned 20° off vertical for extra viewing comfort. Front vertical and inclined panel section, plus rear are adjust, from front to rear. All models: Ht., 51¼"; w., 24¾"; outside d., 23½"; clear inside d., 20½"; wt., 160 lbs. *Inclined panel space. †Vertical panel space. See note below.

Mfr's				Ht. W.		*	+	Wt.	EACH			
Туре	RB	GT	GD	in.	in.	In.	In.	Lbs.	1-4	5-9	10-Up	
SE-2065	736F7102 736F7122	7111	315	511/4	243/16	153/4	241/2	173	228.54 242.23 242.23	193.78		



SERIES 2000 DESK TOPS

May be installed on any Series 2000 cabinet rack. White Formica top. 24% "x19½" x3-1/6". †Supporting channel. See ordering note

Mfr's	Stoc	k No.		W.	W. Dp. H. † Wt. EACH						
Туре	RB	GT	GD	in.	in.	in.		Lbs.	المختلط		10-Up
	736F3700 736F3703			24 ³ / ₁₆ 24 ³ / ₁₆	191/2	31/16 31/16	21% 2x3/4	29 30	56.70 58.53	45.36 46.82	39.04 40.31



DESK TOP DRAWER

TYPE 60-2363. Designed for use with Bud Series 2000 or Series 60 Cabinet racks, Hinged top is Formica bonded to aluminum; has piano-type hinge. Latch locks and releases drawer and top. Nylon rollers. Front panel, 3½x19". Inside, 16%/kx23/kx214/k". For front panel. Shpg. wt. 19 lbs. See note below.

Mfr's	M. Beach . S	Stock No.										
Type	BY	GY	HG	S	WH							
60-2363	736F9019	9020	9021	9022	9025							
1-4 5-9	ach 69.21	lO-Up			86.51 59.57							

NOTE: in tables on this page, BR=Black Rinkletex, GR=Gray Rinkletex, HG=Gray Hammertone, GG=Dark Gray Textured, BB=Dark Blue Textured, GY=Light Gray Textured, BY=Light Blue Textured, S=Sand Textured, GT=Gray Textured, RB=Royal Blue Textured, GD=Gold Textured, WH=White Textured finish. TO ORDER: find Type desired, read across to color wanted to locate complete Stock No.



SERIES 60 UPRIGHT CABINET RACKS

CABINET RACKS

Welded frame of 14-gauge steel.
Sides, rear door are 16-gauge
steel. Adjust vertical panel mounting rails. Front rails drilled, tapped 3-32, W.E. spacing. Rear rails
are drilled with universal spacing.
Stnd. 19" panels fit. 24\(\text{h}'_k\)" wide,
23\(\text{k}''\)" deep inside except †, 20\(\text{k}''\).
Top opening 18\(\text{k}''\)x17" deep on
types having 22" outside depth,
20\(\text{k}''\) on others. "Panel space.
Depth, 25\(\text{k}''\), except \(\text{t}\), 22". See
note on left, below.



Туре	Stock P	lo.	Ht.	P.S.*	Wt.		EACH	
60-	BB	GG	In.	in.	Lbs.	1-4	5-9	10-Up
2300t		8901	295/st	21	118	155.39	125.65	107.0
2301†	736F8905	8906	401/st	311/2	156	192.30	155.50	132.4
2302†		8911	50%t	42	173	213.51	172.60	153.4
2303†	736F8915	8916	61 1/8t	521/2	197	237.22	191.80	170.5
2304†	736F8920		69 %‡	611/4	220	263.61	213.10	189.4
2305		8926	78%t	70	235	292.83	236.75	210.4
2307	736F8935	1	29%	21	156	183.53	148.35	131.9
2309	736F8945	8946	50%	42	185	236.89	191.50	170.2
2310	736F8950	8951	611/8	521/2	211	263.02	212.65	189.0
2311		8956	69%	611/4	240	292.25	236.25	210.0
2312	736F8960	8961	78%	70	256	324.65	262.45	233.3
2313		8966	87%	783/4	267	354.29	286.45	254.6

SERIES 60 INCLINED PANEL RACKS

Accept 19" panel. Assembled. Front rails drilled, tapped at 10-32 W.E. spacing. Welded frame of 14-gauge steel; sides, door of 16-gauge steel. Inclined panel slanted 20°. $50\% \times 24\%_0 \times 22$ " outside; 20%" d. inside. *Inclined top panel ht., †Vertical panel ht. See note at left, below.

Type 60-	Stock	No.	I.P.*	VP.†	EACH			
6Ó-	BB	GG	In.	In.	1-4	5-9	10-Up	
2330 2331 2332	736F8975 736F8980 736F8985	8986	10½ 15¾ 17½	29 ³ / ₄ 24 ¹ / ₂ 22 ³ / ₄	233.05 246.91 246.91	188.40 199.60 199.60	167.50 177.45 177.45	

SERIES 60 ACCESSORIES

STEEL TURRETS, Fit 19" panel. 16-gauge steel. Mounting rails have universal hole spacing. Panel space (front. bottom, rear): Type 2364—17½", 14", 8¾"; Type 2365—12¼", 10½", 7"; Type 2366—21", 17½", 10½". Panel spaces recessed ¾". Type 2364, 17 lbs.; Type 2365, 14½ lbs.; Type 2366, 20 lbs.

Type 60-	Stock N	Outside	e Size (ir	nches)				
60-	BB	GG	Н	W	D	1-4	5-9	10-Up
2364 2365 2366	736F9031 736F9041	9032	12 ⁵ / ₁₆ 10 ³ / ₁₆ 14 ³ / ₈	22½6 22½6 22½6	17% 14% 20 ¹³ / ₁₆	55.19 46.09 58.03	44.65 37.25 46.95	39.70 33.10 41.70

DESK TOPS. Fit all Series 60 Cabinet Racks. Antique White Formica top. Metal sides and cowl. Support over 200 lbs. 24½ '' w. x 19½ '' d. x 3½ '' h.

Mfr's	Stock	No.	Depth			
Туре	BB	GG	Inches	1-4	5-9	10-Up
60-2360	736F9001	9002	22 .	56.20	45.45	40.40

SLIDING DESK TOPS. Formica surface. Support 50 lbs. Occupy 1¾" panel space. For front panel. WxDxPanel: 16%x15½x19x1¾", 9¼ lbs. See Note at left.

Mfr's	Stock I	No.	EACH				
Туре	GY	BY	1-4	5-9	10-Up		
60-2361	736F9007	9006	31.06	25.10	22.30		

DRAWER. Slides out 16" on nylon rollers. 16-ga, steel with 11-ga, panel, brackets. Alum. handles. Inside: $16^1\%_{32} \times 6^1\%_{32} \times 19^1\%_{4}$ ". Takes 8%" panel space. 28 lbs.

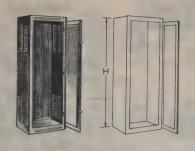
Mfr's		Stock No.		EACH				
Туре	GY	BY	HG	1-4 5-9		10-Up		
60-2368	736F9060	9059	9061	70.14	56.70	50.14		



DELUXE ENCLOSED RELAY RACKS

	Doors	nave 2 snap-a		catches	16-ga. steel	with 7	/64" P	anel su	pports.	Casters	can be mou	inted c	on bas	e. For 19" par	els. \$	See No	te left t	to order.
	Mile's	Stock	k No.	1 2	Overall	Panel	W.	EAC	H	Magnin.	Stock	No.		Overall	Panel	WA	EAC	281
Туре	BR	GR	HG	Size In.		Lbs.		10-14*	Type	BR	GR	HG			Lbs.	1-9	10-14*	
	CR-177 CR-177	736L2F3210 736L2F3180	3211 3181 3191	3182	421/16x22x171/8 475/16x22x171/8 66%ex22x171/6	42	92	90.18	81.00	CR-1780 CR-2075		3221 3261	3222 3262	75%6x22x17% 75%6x22x22%	70 70	125 147	115.82 138.11	104.05 124.05

Contact Allied for higher quantity prices.



ENCLOSED 2-DOOR CABINET RACKS

Solid front door, louvered rear door. Adjustable panel mounting supports may be moved from the front to the rear of cabinet in 1-inch increments so that distance behind panels may be adjusted from 9" to 15", 16-ga. steel. Take casters. Gray Hammertone finish (HG).

Mfr's Type	Stock No.	Panel Space	O'all Ht.,	Wt.	EA	CH
Type		inches	in.	Lbs.	1-9	10-Up
CR2174		363/x19		102	101.35	
CR2172	736L2F3292	611/4x19	66%18	138	140.85	126.55

OPEN TYPE RELAY RACKS

RR-1363, 1264, 1364, 1366. Uprights %4" steel channels 3" deep. Has chassis type base. Take RC7756 casters. RR-1369 is extra sturdy with 8" deep welded U member. Panel mounting rails tapped 10-32, 12-ga. steel. Chassis type base will accept casters. Racks may be bolted together.

Mfr's	Stock No		Panel Space	Overall Ht.xW.	Wt.	EACH	
Туре	BR	HG	Inches		Lbs.	1-9	10-Up
	736L2F6350 736L2F6330					35.60 41.17	
RR-1366	736L2F6360 736L2F6370 736L2F6380		77 x19	81%4x20	49	43.25 47.34 87.93	42.55

HEAVY-DUTY CABINET RACKS

For use where more strength and depth is needed; clear inside depth of 16%e''; 22'' wide (24'' width available on special order). Hinged removable rear door. Louvered sides and 2%ex 17%e'' rear bottom vent. Color Code for Racks Listed Above and Below: HG = Gray Hammertone; BR=Black Rinkletex; GR=Gray Rinkletex.



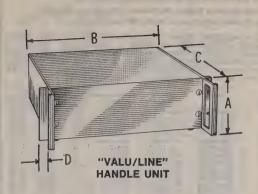
Mfr's		Stock N	0.	Ht.	Panel Ht.	WYE.,	Price
Туре	HG	BR	GR	(in.)	(In.)	50 57 70 35-1	Code
CR-1737	736-3082 736-3092 736-3102	736-309			19¼ 26¼ 35	57	A B C
Price Code	1-14		15-24	CH 25-3	4	35-	Up
A B C	51.4 55. 65.	19	46.20 49.60 58.95	41.1 44.1 52.4	0	38. 41. 49.	35

DELUXE CABINET RACKS

The "work-horse" of economy-type housings. This welded steel cabinet rack has contoured front uprights—recommended for use as an enclosure for instrumentation. A 12-gauge, 19" steel panel is included. Hinged top with flush lift handle. Clear Inside depth, 141%/8". See Color Code Above.



Type	Sto	ck No.		Height	Panel Space	Wt.,	EACH
CR-	HG	BR	GR	In.	in.	Lbs.	LAGII
1726 1741 1740 1742 1739	736U3U5Z 736U3132 736U3122 736U3142 736U3112	3113	3054 3134	8 ²⁵ / ₃₂ 10 ⁸ / ₁₈ 12 ⁸ / ₁₆ 14 ¹ / ₁₈ 15 ¹³ / ₁₈	7 8¾ 10½ 12¼ 14	24 28¼ 31 32 35	27.39 29.14 34.15 35.15 47.68
1743 1728 1744 1727 1745	736U3152 736U3072 736U3162 736U3062 736U3172	3073 3163	3154	195/18 335/16 281/18 2213/16 3613/16	17½ 31½ 26¼ 21 35	40 58 51 43 63	46.68 57.28 53.94 50.10 60.29



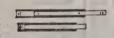
Combines innovative engineering techniques with styling that is both classic and contemporary. Priced surprisingly low. May be used as an independent enclosure or in a standard E.I.A. 19" cabinet rack. Adhesive paper protective covering of the ½" brushed aluminum panels provides an excellent surface for indicating position when drilling or punching panel areas. Base, rear and top are .057" aluminum with smooth white enamel finish. Sides are ½" aluminum with white textured enamel. Completely assembled unit includes two separate detachable rack mounting brackets and rubber feet.

Battele Trees	Dimensions in Inches								
Mfr's Type	15 OF A .	В	C	D					
HC-14101	31/2	17	13	1					
HC-14103	5.1/4	17	13	-1					
HC-14104	7	17	13	1					
HC-14105	83/4	17	13	1					
HC-14106	10%	17	13	1 1					
HC-14107	101/2	17	15	1					
HC-14109	14	17	15	1 1					

Stock	Mfr's	EACH					
No.	Type	1-4	5-9	10-Up			
736-4451	HC-14101	65.30	52.80	46.90			
736-4453	HC-14103	67.30	54.40	48.35			
736-4454	HC-14104	70.64	57.10	50.75			
736-4455	HC-14105	74.07	59.90	53.25			
736-4456	HC-14106	77.41	62.60	55.65			
736-4457	HC-14107	80.83	65.35	58.10			
736-4459	HC-14109	90.85	73.45	65.30			

BALL-BEARING CHASSIS SLIDES

Provide Smooth, Featherweight Movement



Precision-designed linear-motion chassis slides engineered to provide smooth, non-sticking movement. Suitable for a wide range of applications. Featherlight telescoping motion is tested for hundreds of thousands of cycles without wear. Each main member is press-formed to a constant and precise tolerance from high-tensile cold rolled steel to reduce breakdowns. Chrome-carbonsteel ball bearings are set in special retainers for smoothness of movement. Self-cleaning bridged ball retainers for efficient operation and long wear. Bright electro-zinc finish. All slide mounting holes are .180 x .210-In.

	Mfr's			1 .		PER PAIR		
Stock No.	Type AS-	Lgth.	Travel	Load Pating			5- 9	10- Up
736-0900	5000	12"	9"	135	1¾	13.03	13.30	9.35
736-0901	5001	16"	12"	104	2	15.11		10.90
736X0922	5002	20"	15"	73	2½	16.45		11.85
736X0926	5022	20"	20"	140	5¼	37.07		26.65
736-0943	5060	12"	9"	135	13/4	11.94	9.70	8.60
736-0944	5061	16"	12"	104	2	12.86	10.40	9.25
736X0945	5062	20"	15"	73	23/2	13.53	10.95	9.70

DESK-TYPE RELAY RACKS

Have chassis-type base. Supporting angles assure steadiness. Mfr's Type RR-1248: 24x20%x12" overall, 21" panel ht.; Type RR-1249: 31x20%x12" overall, 28" panel ht. In Black Rinkletex or Gray Hammertone.



Grav	Black	Mfr's	Wt		EACH		
Hammertone	Rinkletex	Type	Lbs.	1-14	15-24	25-Up	
736U6200	736X6301	RR-1248		16.53			
736X6203	736X6311	RR-1249	18	19.54	17.55	15.60	



STANDARD ALUMINUM RACK PANELS

A 1/sx19" aluminum panels have notched edges for standard W.E. spacing. 1/s" steel, 3/16" alum., hard alum. (2024-T-3) and 24" panels available, contact Allied.

HOW TO ORDER.

7 finishes. Add following digits in place of suffix "N" for color: 1=Black Rinkletex; 3=Gray Rinkletex; 5=Gray Hammertone; 2=Light Blue Textured; 4=Light Gray Textured; 7=White; 6=Sand.

				EACH			
Stock	Mfr's	Ht.	Wt.	1-	50-	100-	
No.	Type	In.	Lbs.	49	99	Up	
736X511N 736X512N 736X513N 736X514N 736X515N 736X516N	PA-1101 PA-1102 PA-1103 PA-1104 PA-1105 PA-1106	1¾ 3½ 5¼ 7 8¾ 10½	1/4 3/4 1 1 3/4 2 21/2	3.00 4.13 5.38 6.88 7.75 10.00	2.40 3.30 4.30 5.50 6.20 8.00	1.60 2.20 2.90 3.70 4.10 5.30	
736X517N	PA-1107	17½ 19¼	2¾	11.50	9.20	6.10	
736X518N	PA-1108		4	13.13	10.50	7.00	
736X519N	PA-1109		3½	14.63	11.70	7.80	
736X520N	PA-1110		4	14.88	11.90	8.50	
736X521N	PA-1111		4¼	11.69	10.50	9.30	
736X534N	PA-1112		5	12.94	11.65	10.35	

SURFACE-SHIELD RACK PANELS

B %" thick bright aluminum alloy rack panels in blemish-free mill finish. 19" wide.

				EACH			
Stock No.	Mfr's Type	Ht. In.	Wt. Lbs.	1- 49	50- 99	100- Up	
		1¾ 3½ 5¼ 7	1/4 3/4 1 1 3/4	2.50 4.25 5.50 6.75	2.00 3.40 4.40 5.40	1.30 2.30 2.90 3.60	
736X7205 736X7206	SFA-1835 SFA-1836 SFA-1837 SFA-1838	8¾ 10½ 12¼ 14	2 2½ 2¾ 3	7.88 10.25 11.75 13.25	6.30 8.20 9.40 10.60	4.20 5.50 6.30 9.10	
		15¾ 17½ 19¼ 21	3½ 4 4¼ 5	14.00 11.02 12.27 13.28	11.20 9.90 11.05 11.95	7.10 8.80 9.80 10.60	

CHASSIS SUPPORTING ANGLES

Distribute the weight to the sides of the rack. Relay-rack runners of 7/64" steel for heavy chassis shelves. Rugged, long-wearing. Black enamel finish.

				PER PAIR			
Stock	Mfr's	HxWxD	Wt.,	1-	25	50-	
No.	Type	Inches	Lbs.	24	49-	Up	
		1%x3x141/2	4	5.75	4.60	3.10	
736-6601	SA-1350	1%x3x12	3	5.75	4.60	3.10	

TRIANGULAR MOUNTING BRACKETS

Designed for durability. Quality-constructed of heavy-gauge steel to provide rigid support for panel and chassis assemblies and for shelves where heavy weights are involved. Black enamel finish.

					PER PAIR			
Stock	Mfr's	Ht.	Depti	ı Wt.	1-	50-	100-	
No.	Туре	in.	In.	Lbs.	49	99	Up	
736-4506	MB-1266	5	5	1	2.50	2.00	1.30	
	MB-1267	17	7	1	3.00	2.40	1.80	
736-4508	MB-1268	9.	9	11/2	3.75	3.00	2.25	

PANEL-MOUNTING CHASSIS

Durable .060" aluminum panel-mounting chassis for vertical installation where depth is limited or access from front of chassis is desired. Fit on channel mounting rails in rack. Reinforced corners and flanges on front and sides. Natural finish



				EACH			
Stock	Mfr's	Ht.	Wt.,	1-	25-	50-	
No.	Type	in.	Lbs.	24	49	Up	
736-2277 736-2278 736-2279 736-2280	CB-1370 CB-1371 CB-1372 CB-1373	1% 3½ 5%	1½ 1½ 1½ 2	5.50 6.13 6.88 7.75	4.40 4.90 5.50 6.20	2.90 3.30 3.70 4.10	
736-2281	CB-1374	8¾	21/4	9.38	7.50	5.00	
736-2282	CB-1375	10½	23/4	10.88	8.70	5.80	
736X2284	CB-1377	14	31/4	13.25	10.60	7.10	

Chassis Bases and Cabinets



ALUMINUM CHASSIS BASES

- Welded at Vital Spots to Supply the Utmost Strength and Rigidity
- Wide Range of Sizes Available to Meet Individual Needs

Offer outstanding strength and rigidity for construction of amplifiers, meters and other components. Made from one piece of sheet metal. Welded on government-approved spot welders developed for aluminum. All sides folded in at the bottom for additional support assuring strength and durability. Natural finish aluminum alloy 5005 H-14. Are 18 ga., except †16 ga. or *14 ga. ‡Prepunched for easy assembly of chassis mounting brackets.

Stock	Mfr's	Sizeinches	Wt.,	EA	CH
No.	Type	WxDxH	Lbs.	1-24	25-Up
736-0031	AC-431	4x6x2	1/2	3.00	2.40
736-0030	AC-430	4x6x3	1/2	3.25	2.60
736-0032	AC-4321	4x17x3	11/4	4.80	3.84
736-0002	AC-402	5x7x2	1/2 .	3.13	2.50
736-0029	AC-429	5x7x3	3/4	3.50	2.80
736-0003	AC-403	5x9½x2	1/2	3.38	2.70
736-0021 736-0004	AC-421	5x9½x3	3/4	4.13	3.30
	AC-404	5x10x3	. 3/4	3.38	2.70
736-0022	AC-422	5x13x3	3/4	4.75	3.80
736-0033	AC-4331	6x17x3	11/4	6.88	5.50
736-0005 736-0006	AC-405 AC-406	7x7x2	1/2	3.38	2.70
		7x9x2	1/2	3.50	2.80
736-0007	AC-407	7x11x2	3/4	4.13	3.30
736-0008 736-0009	AC-408	7x12x3	1,	5.00	4.00
736-0009	AC-409 AC-411†	7x13x2 7x15x3	3/4	4.25	3.40
			11/2	6.88	5.50
736-0023 736-0024	AC-423†	7x17x3	134	6.88	5.50
736-0024	AC-4241	8x12x3	11/2	5.88	4.70
736-0012	AC-412†‡	8x17x2 8x17x3	1%	6.13 7.13	4.90 5.70
736-0012					
736-0014	AC-413† AC-414†	10x12x3 10x14x3	11/2	7.13	5.70
736-0014	AC-41511	10x14x3	1%	7.13 6.88	5.70
736-0016	AC-4161‡	10x17x2 10x17x3	2	7.88	6.30
736-0027					
736-0027	AC-427*‡	10x17x4 11x17x2	3%	11.13	8.90
736-0026	AC-420 1	11x17x2 11x17x3	21/4	8.63 10.00	6.90
700-0017	- AO-417 +	11/1/3	274	10.00	8.00

Stock	Mfr's	SizeInches	Wt	EA	СН
No.	Type	WxDxH	Lbs.	1-24	25-Up
736-0018	AC-418°‡	12x17x3	23/4	10.25	8.20
736-0019	AC-419°‡	13x17x2	21/2	8.80 10.63	7.04 8.50
736-0020 736-0028	AC-420°‡ AC-428°‡	13x17x3 13x17x4	2¾ 3¾	13.00	10.40
736-0202	AC-1402	3½x4½x1	1/6	2.50	2.00
736-0202	AC-1404	4x5x2	1/4	3.00	2.40
736-0205	AC-1405	4x6x11/2	1/4	2.63	2.10
736-0206	AC-1406	4x8x2	3∕8	3.38	2.70
736-0208	AC-1408	5x9x1½	3/8	3.13	2.50
736-0213 736-0214	AC-1413 AC-1414†	6x8x2 6x14x3	1 1/4	3.38 6.00	2.70 4.80
736-0214	AC-1415†	7x15x2	1 74	5.50	4.40
736-0216	AC-1416†	7x17x2	1	6.13	4.90
736-0217	AC-1417†	7x7x2½	1/2	6.38	5.10
736-0218	AC-1418 -	8x10x2½	1	5.13	4.10
736-0219	AC-1419‡	8x12x2½	1	6.00	4.80
736-0220	AC-1420†	8½x15x3	1 1/2	6.63	5.30
736-0221 736X0222	AC-1421†	9x15x3 10x17x5	11/2	7.50 10.77	6.00 9.50
736X0223	AC-1423*	10x23x3	3/2	11.88	9.50
736X0225	AC-1425†	12x17x2	11/2	6.00	4.80
736X0226	AC-1426*	. 13x17x5	31/2	11.86	10.65
736X0227	AC-1427*	14x17x3	3%	12.63	10.10
736X0228	AC-1428°	15x17x4		11.86	
					14.65
					12.70
736X0229 736X0230 736X0231	AC-1429° AC-1430° AC-1431°	15x17x6 17x17x3 17x17x4	3% 3% 4	16.28 14.25 14.11	11.

ALUMINUM TWO-PIECE MINIBOXES

Self-contained units for use where shielding as well as protection from dust and dirt is desired. May be used for phono amplifiers, VHF and UHF converters, low-pass TVI filters, test and measurement units, etc. Two-piece construction permits installation of components or wiring modifications. Flanges assure low RF leakage and provide high rigidity. Choice of snap-lock fastening or screw fastening; all hardware supplied. Made of high-quality aluminum — Gray Hammertone or Natural Finish. Easy to cut, punch and drill.

Size in.	Wt	Cross	Mas-i-		EACH		Name	0.05./-		EACH	
AxCxB	Lbs.	Gray Hammertone	Mfr's Type	1- 49	50- 99	100- Up	Natural Aluminum	Mfr's Type	1- 49	50- 99	100- Up
2%x2%x1%	1/4	736-3633	CU-2100-A	1.75	1.40	.90	736-3651	CU-3000-A	1.50	1.20	.80
3%x2%x1%	1/4	736-3634	CU-2101-A	1.75	1.40	.90	736-3652	CU-3001-A	1.50	1.20	.80
4x2%x1%	1/4	736-3635	CU-2102-A	1.88	1.50	1.00	736-3653	CU-3002-A	1.63	1.30	.90
4x2%x2%	1/4	736-3636	CU-2103-A	2.13	1.70	1.10	736-3654	CU-3003-A	1.88	1.50	1.00
5x2%x2%	1/4	736-3637	CU-2104-A	2.38	1.90	1.30	736-3655	CU-3004-A	2.13	1.70	1.10
5x4x3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	736-3638	CU-2105-A	2.88	2.30	1.50	736-3656	CU-3005-A	2.13	1.70	1.10
5%x3x2%		736-3639	CU-2106-A	2.50	2.00	1.30	736-3657	CU-3006-A	2.13	1.70	1.10
6x5x4		736-3640	CU-2107-A	3.63	2.90	1.90	736-3658	CU-3007-A	2.88	2.30	1.50
7x5x3		736-3641	CU-2108-A	4.13	3.30	2.20	736-3659	CU-3008-A	3.63	2.90	1.90
8x6x3%		736-3642	CU-2109-A	5.38	4.30	2.90	736-3660	CU-3009-A	4.63	3.70	2.50
10x6x3½ 12x7x4 17x5x4 10x2x1‰ 12x2½x2½	1 1/4 1 3/4 2 1/4 1/2 3/4	736-3643 736-3644 736-3645 736-3646 736-3647	CU-2110-A CU-2111-A CU-2112-A CU-2113-A CU-2114-A	5.88 8.00 8.00 3.00 4.00	4.70 6.40 6.40 2.40 3.20	3.10 4.30 4.30 1.60 2.10	736-3661 736-3662 736-3663 736-3665	CU-3010-A CU-3011-A CU-3012-A	5.00 7.00 7.00 3.50	4.00 5.60 5.60	2.70 3.70 3.70 1.90
4x2x2%	1/4	736-3648	CU-2115-A	2.13	1.70	1.10	736-3666	CU-3015-A	1.88	1.50	1.00
4%x2%x1%	1/4	736-3649	CU-2116-A	2.13	1.70	1.10	736-3667	CU-3016-A	1.88	1.50	1.00
3%x2%x1%	1/4	736-3650	CU-2117-A	2.13	1.70	1.10	736-3668	CU-3017-A	1.63	1.30	.90

COWL-TYPE MINIBOXES



Projecting cover on this enclosure reduces glare on front panel from overhead light source. It also supplies protection for controls and dials. Cover has two braces to which bottom is attached with sheet metal screws making the assembly unusually sturdy and rigid. Constructed of .040 alumi-Natural Aluminum or Gray Hammertone finish—see table below.

GRAY HAMMERTONE

		Size	1		EACH	
Stock	Mfr's	inches	Wt.,	1-	50-	100-
No.	Type	HxWxD	Lbs.	49	99	Up
736-6900	SC-2130	6x10x7	1¾	14.25	11.48	7.60
736-6901	SC-2131	7x12x8	2	14.12	11.29	8.30
736-6902	SC-2132	3x8x5	1	8.25	6.60	4.40
736-6903	SC-2133	5x5x5	3⁄4	8.38	6.70	4.50

NATURAL ALUMINUM

		Size		EACH			
Stock Mfr's Inches	Wt.,	1-	50-	100-			
No. Type HxWxD	Lbs.		99	Up			
736-6904	SC-3030	6x10x7	1¾	10.38	8.30	5.50	
736-6905	SC-3031	7x12x8	2	11.13	8.90	5.90	
736-6906	SC-3032	5x5x5	1	5.88	4.70	3.10	
736-6907	SC-3033	3x8x5	¾	6.25	5.00	3.30	

CONVERTA BOXES



- Components May be Mounted to Any Surface
- Constructed of Rugged 20-Gauge Steel
- Versatile, Economical and Extra Sturdy

Afford maximum protection to delicate electronic equipment. Components and controls can be mounted to any surface of these enclosures. Constructed of heavy-duty 20-gauge steel with welded base and two-sided cover. Cadmium plated. Cover and base attach by means of self-tapping screws which are included.

		Size		EACH			
Stock	Mfr's	inches	Wt.,	1-	25-	50-	100-
No.	Type	HxWxD	Lbs.		49	99	Up
736-3603 736-3605 736-3608	CU-341 CU-452 CU-482	1½x4x3 2x5x4 2x8x4	1/ ₂ 1/ ₄	4.75 4.35 4.88	3.80 3.48 3.90	2.50 2.50 2.60	2.35 2.35 2.45
736-3611	CU-592	2½x9½x5	1¾	5.25	4.20	2.80	2.65
736-3612	CU-622	2½x12x6	2¾	5.75	4.60	3.10	2.90
736-3613	CU-712	2½x15x7	3½	7.75	6.20	4.10	3.85

MINISLIDES



Allow easy access to interior. Base may be mounted in any position in rack cabinet. Fabrication of .050 aluminum. Assemble with 4 self-tapping screws. Choice of Gray Hammertone or Natural Aluminum finish.

GRAY HAMMERTONE

Stock No.	Mfr's Type	Size Inches LxWxD	Wt., Lbs.	1- 49	50- 99	100- Up		
736-5000 736-5001 736-5002	MS-2150 MS-2151 MS-2152	13x3%x2% 13x5%x2% 17x3%x2%	1 1½ 1¼	9.00 10.00 9.75	7.20 8.00 7.80	4.80 5.30 5.20		
NATURAL ALUMINUM								

736-5004 MS-3050 13x3½x2½ 736-5005 MS-3051 13x5½x2½ 736-5006 MS-3052 17x3½x2½	1 1% 1%	8.13	5.30 6.50 6.30	4.30
---	---------------	------	----------------------	------

METAL UTILITY CABINETS



General-purpose cabinets for small area housings. Two removable panels, both front and rear, provide easy access to inside. Steel cabinets in Black Rinkletex or Gray Hammertone finish; aluminum cabinets in Natural Aluminum or Gray Hammertone finish.

STEEL

Size	Black	Gray				EAGH	
Inches HxWxD	Rinkle- tex	Hammer- tone	M fr's Type	Wt., Lbs.	1- 49	50- 99	100- Up
4x4x2 4x5x3 6x5x4 6x6x6 9x6x5	736-3626 736-3615 736-3617 736-3628 736-3629	736-3625 736-3614 736-3616 736-3627 736-3630	CU-883 CU-728 CU-729 CU-1098 CU-1099	1 1 3/4 2 1/4 3	2.88 3.38 3.63 5.75 6.50	4.60	1.50 1.80 1.90 3.10 3.50
10x8x7 10x10x8 12x7x6 12x11x8 15x9x7	736-3619 736-3621 736-3632 736-3623	736-3618 736-3620 736-3631 736-3622 736-3624	CU-879 CU-880 CU-1124 CU-881 CU-882	3¼ 6¼ 5 8½ 5	8.88 10.38 8.88 11.38 11.50	8.30 7.10 9.10	4.70 5.50 4.70 6.10 6.10

Size			EACH			Grav	EACH		
Inches HxWxD		Nátural Finish	1- 49	50- 99	Up	Hammer- tone	1- 49	50- 99	100- Up
4x5x3 6x5x4 6x6x6	AU-1028 AU-1029 AU-1039	736-1000 736-1002 736-1004	3.75 4.25 6.25	3.00 3.40 5.00	2.00 2.30 3.30	736-1009 736-1001 736-1003 736-1005 736-1007	4.75 5.13 6.75	3.80 4.10 5.40	2.50 2.70 3.60

UTILITY CABINETS



Made of 20-gauge steel.
Rounded contoured comers;
flanged panels have rounded
corners. Rear panel is louvered. Solid front panel. Both
front and rear panels attached
with four 6-32 screws each.
Body in Dark Gray textured
finish; panels are Light Gray textured finish providing
handsome appearance. Shgp. wts.: CU-463, 1½ lbs.;
CU-465, 2 lbs.; CU-585, 3 lbs.; CU-587, 3½ lbs.; CU-7127,
534 lbs.

Stock	Mfr's	Size Inches	EACH			
No.	Type	HxWxD	1-24	25-49	50-Up	
736-3606	CU463	47/32x67/32x33/4	11.63	9.30	6.20	
736-3607	CU465	47/32x67/32x53/4	13.25	10.60	7.10	
736-3609	CU585	51/32x81/32x53/4	11.36	10.20	9.10	
736-3610	CU587	51/32x81/32x73/4	12.53	11.25	18.00	
736-3669	CU7125	71/32×121/32×53/4	11.53	10.35	9.20	
736-3670	CU7127	71/32×127/32×73/4	12.11	10.90	9.70	

ECONOBOXES

Versatile die-cast utility boxes for applications requiring a sturdy structure. Especially desirable for concealed or other interior use where safety enclosure is required. Feature close-fitting flanged lids fastened to bosses in the body. The close fit of the lids and the thickness of the aluminum alloy combine to provide excellent screening properties. Cast of LM-380 aluminum.

		Thick-			EACH			
Stock No.	Mfr's Type	ness Inches	Wt. Lbs.	LxWxH	1-24	25- 49	50- Up	
736-3599 736-3600 736-3601 736-3602 736-3604	CU-124 CU-234 CU-247	1/16 3/32 3/32	1/2 1/2 3/4 11/4 11/2	3%x1½x1½e 4%x2%x1½e 4½ex3½ex2½e 7%x4½ex2½e 7%x4½ex3½e	3.00 4.75 7.75	2.20 2.40 3.80 6.20 6.70	1.60 2.50 4.10	

METAL COLOR DESIGNATIONS

BR—Black Rinkletex
GR—Gray Rinkletex
HG—Gray Hammertone
GG—Dark Gray Textured
BB—Dark Blue Textured
GY—Light Gray Textured
BY—Light Blue Textured

S—Sand Textured
GT—Gray Textured
RB—Royal Blue Textured
GD—Gold Textured
WH—White Textured
EBL—Flat Black Ename)
PO—Primer

Cases, Cabinets and Foundations

CABINETS BOXES AND CASES

"TRANSICASE" CASES

Portable Instrument cases of .040" thick alum. Flush-fitting alum. panel; lid on 2 slide-off hinges. 1½32" clearance from panel top. Rubber feet. Dark blue finish. All hardware is brightly nickel-plated. *Space below panel.



Stock No.	Type TC-	Size H x W x D Inches	Panel Size Inches		Wt.	EACH
736-7601	300	6x101/16x7	815/16x515/16	4 ¹³ / ₃₂	4½	33.58
736-7621	302	71/2x13x9	11/8x715/16	5 ²⁸ / ₃₂	8	36.91
736-7631	303	71/2x161/2x9	153/8x715/16	5 ²⁹ / ₃₂	8	37.49
736-7641	304	9x201/2x8	9x7	7 ¹¹ / ₃₂	10	39.58

"PORTACAB" CABINETS

For equipment requiring maximum portability. Sturdy one-plece body is .050" aluminum with contoured corners. Cabinet is louvered for adequate ventilation. Louvers point inward for side-to-side placement of cabinets without loss of space. Welded back has opening (table below) for access to interior. .062" aluminum front panel is recessed ½" to protect controls. Front panel mounting flanges ½" wide. With 4 rubber feet. "Use With" column in table below indicates recommended Mfr's chassis to use. Gray Hammertone finish. For equipment requiring



DIMENSIONS

Mfr's	DxWxH	Opening	Louvers	Wt.
Type	Inches	Inches	Per Side	Lbs.
WA-1540	8x6%x8	2x4½	1 Set	2
WA-1541	12x8%x9	2x6½	2 Sets	3½
WA-1542	8x10%x8	2x8½	1 Set	3¾
WA-1543	18x11%x11	2x9½	3 Sets	5½
WA-1544	18x14%x12	2x12½	3 Sets	8

ORDERING INFORMATION

Stock	Mfr's	Use With	EACH			
No.	Туре	Chassis	1-24	25-49	50-Up	
736-8210 736-8215 736-8220 736-8225 736-8230	WA-1540 WA-1541 WA-1542 WA-1544 WA-1544	AC-402 AC-407 AC-406 AC-416 AC-420	14.28 18.62 16.62 23.05 26.47	12.85 16.75 14.90 20.70 23.75	11.40 14.90 13.25 18.40 21.10	

PORTABLE ALUMINUM AND STEEL CARRYING CASES

Ideal for portable transcelvers, test instruments, etc. Handle attaches to top or side. Panels removable to provide access to interior. Available in welded steel for maximum strength or in aluminum for light weight. Rigid construction assures proper support for components. Steel cabinets available in Black Rinkletex (BR) or Gray Hammertone (HG). Aluminum cabinets weigh less than 2 lbs; available in Gray Hammertone or Natural finish. Av. shpg. wt. 3 lbs.



STEEL CASES

Stock No.		Туре	Size inches	Wt.	EACH			
BR	HG	CC-	HxWxD	Lbs.	1-24	25-49	50-Up	
736-2504 736-2500 736-2506 736-2502	736-2501 736-2507	1095 1092 1097 1093	9x6x5 7x12x6 15x7¾x7 9x15x7	3½ 4 5 5	7.75 10.75 12.13 14.00	9.70	5.70 6.50	

NATURAL FINISH ALUMINUM CASES

	Stock	Туре	Size	1	EACH	
	No.	ACC-	HxWxD	1-24	25-49	50-Up
_	736-0304	2095	9x6x5	7.50	6.00	4.20
	736-0300	2091	6x9x5	9.00	7.20	4.20
	736-0302	2092	7x12x6	12.13	9.70	6.50

GRAY HAMMERTONE ALUMINUM CASES

Stock	Type	Size		EACH	
No. Type	HxWxD	1-24	25-49	50-Up	
736-0305 736-0301	2095 2091	9x6x5 6x9x5	9.00	7.20 7.20	4.80 4.80
736-0307 736-0303	2096 2092	12x7x6 7x12x6	13.88	11.10	7.40 7.40

TILT-A-VIEW CABINETS



Stock	Mfr's	r's Size Ins. Wt.		EACH			
No.	Type	HxWxD	Lbs.	1-14	15-24	25-Up	
	TV-2155	4½x15x10		11.53	10.35	9.20	
736X7701		6½x16x12		13.53	12.15	10.80	
/36X//UZ	TV-215/	8½x17x14	17	19.62	17.65	15.70	

MARK-T CABINETS

Angle of panel and door allow comfortable viewing of components. All welded 16-gauge steel construction. Removable front panel and hinged door. Camaction, self-adjusting spring latch holds door securely against frame



spring later holds door securely against frame. Recessed safety-shielded carry-ing handles. Gray textured body with Light Gray panel and door for smart appearance.

Stock	Mfr's	Width Panel W		nel Wt.		EACH	
No.	Type		Size In.		1-14	15-24	25-Up
736X5100	MT-214		53/4x14		39.58		31.60
736X5101	MT-219	21	5%x19	12	43.34	38.95	34.60

STANDARD AMPLIFIER FOUNDATIONS

Sturdy 20-gauge steel chassis with removable steel cover. with removable steel cover.

18-gauge steel angles used on ends of each cover to provide firm bracing and allow snug fit to chassis. Side, top area between ends enclosed by 20-gauge metal screening for excellent ventilation and protection for components. Metal sides of chassis for portability. 2½" high chassis, except *, 3". Black Rinkletex.



Canal	Tuna	Type H x W x D		EACH		
Stock Type No. CA.	Inches	Wt. Lbs.	1-24	25-Up		
736-1990 736-1992 736-1994 736-1996	699 1125 1126 1128*	85/16x95/x5/6 85/16x135/x5/6 85/16x17/6x7/6 813/16x12/6x10/6	3 4¾ 6 7	14.75 13.75 11.69 11.94	11.80 11.00 10.50 10.70	

SWIVEL TRUCK CASTERS

TYPE RC-7756. Rugged ball-bearing casters designed for deluxe-type relay racks. Support up to 400 lbs. distributed on four casters. Rugged, long-wearing wheels made from high-grade hard rubber. Ht., 25% ". 134 lbs. Pkg. 4. 736-6000. 1-4 Pkgs. Per Pkg. 9.00 5-9... Per Pkg. 7.20 10-Up... Per Pkg. 6.48



TYPE RC-7758. Heavy-duty casters with very sturdy construction for heavy loads. For use with Mfr's Series 60 cabinets. Ball bearings are hard tread composition for longer wear. Wheels are self-lubricating for convenience. Wheel dia., 2½". Height, 3½". Wt. 6 lbs. Pkg. of 4.736-6001. 1-4 Pkgs. Per Pkg. 16.03 5-9 Pkgs. Per Pkg. 14.40 10-Up Pkgs. Per Pkg. 12.90

INSTRUMENT AND RECEIVER CABINETS



Front panel held in place with self-tapping screws. Panel extends full width of cabinet. Louvers on each side of cabinet. Body of 20-gauge steel; panels, 18-gauge steel, except 16-gauge steel. Black Rinkletex finish.

Stock	Mir's Size In.		Wt.	FACH		
No.	Туре	HxWxD	Lbs.	1-24	25-49	50-Up
736-1800 736-1803 738-1805	C-973 C-994 °C-999	7x8x8 7x12x8 12x18x12	5 5¾ 17½	11.50 13.75 18.29	9.20 11.00 16.45	6.10 7.30 14.60

UNIVERSAL SLOPING-PANEL CABINETS

Ideal for control boxes, mike mixers, etc. Has one-piece detachable back and side attached with four screws. Accommodates most small chassis. All are 4½" high, 4" deep. Have handsome Gray Hammertone finish. Shpg. wts. are as follows: 4" and 5" wide cabinets of aluminum, ½ lb.; steel are ¾ lbs. 6" and 7" wide cabinets of aluminum, ¾ lbs.; steel, 1½ lbs. steel, 11/a lbs.



Rugged, Streamlined Sloping-Panel

ALUMINUM

Stock	Mfr's	Width	EACH				
No.	Туре	in.	1-24	25-49	50-99	100-Up	
736-0260	AC-1610	4	4.75	3.80	2.85	2.50	
736-0261	AC-1611	5	4.63	3.70	2.80	2.50	
736-0262	AC-1612	6	5.13	4.10	3.05	2.70	
736-0263	AC-1613	7	5.63	4.50	3.05	2.70	

STEEL

Stock	Mfr's	Width		EA	CH	
No.	Туре	In.	1-49	50-99	100-149	150-Up
736-1907 736-1908 736-1909	C-1607 C-1608 C-1609	5 6 7	4.00 4.38 5.13	3.20 3.50 4.10	2.10 2.30 2.70	2.00 2.20 2.55

SLOPING PANEL CABINETS

Hinged tops, removable front panel. Fit following size chassis: C-1584, 7 x 6 x 2"; C-1585, 7 x 8 x 2"; C-1586, 7 x 10 x 2"; C-1586, 7 x 7 x 2"; C-1586, 7 x 9 x 2"; C-1893, 10x17x3"; C-1894, ;7x13x2"; C-1895, 7 x 17 x 3". BR: Black Rinkletex; GH: Gray Hampardone. Gray Hammertone.



Mfr's	Stoc	k No.	Size Inches	Wt.	EA	CH
Type	BR	GH	HxWxD	Lbs.	1-24	25-Up
			61/2x71/1ex77/32	21/2	8.75	7.00
			61/2 x91/1 ex77/32	3	9.63	7.70
			61/2x111/1ex75/32	31/2	11.13	8.90
C-1892	736-1927	736-1935	8x131/16x813/32	51/4	14.88	11.90
C-1893	736-1937	736-1945	10x181/16x1013/32	81/2	13.03	11.70
C-1587		736-1885	8x81/16x715/16	23/4	11.50	9.20
C-1588	736-1887	736-1895	8x101/1ex8	31/4	12.75	10.20
C-1894		736-1955	8x141/1ex8	4	13.38	10.70
C-1896	736-1957	736-1965	9x181/1ex1015/1e	7	12.61	11.35

SHADOW CABINETS



All-steel equipment cabinets with front panels recessed one inch. Two-piece bodies are made of 18-gauge steel and front and rear panels are of 16-gauge steel. Bottom, front and rear panels are each attached by four self-tapping screws. All are equipped with four rubber feet. Accept Mfr's chassis as listed in table. Finish is gray harmarder.

Stock	Mfr's	Size Inches	Accepts	Wt.	EA	CH
No.	Type		Chassis	Lbs.	1-24	25-Up
736-6700	SB2140	8x141/2x10	AC-424	111/2	12.78	11.50
736-6701	SB2141	7½x13¼x9	AC-408		13.50	
	SB2142	9½x17x11	CB-666		16.95	
736-6703	SB2143	6x15½x9	AC-409	91/2	14.38	11.50

STREAMLINED CABINETS

Have recessed hinge cover with convenient finger-lift for easy opening. Front panels fit flush with embossed, rounded front comers and are removable for chassis requirements. 3½" h. opening in rear. Side louvers. 8" h. x 8½" d. except Type CD-1485 which is 12 x 12".



SPECIFY GRAY HAMMEERTONE (HG) OR GRAY RINKLETEX (GR) FINISH

Туре	pe Stock Number		Widths	Panel Space	Wt.	EACH
CD-	HG	GR	ln.	Ins.	Lbs.	
1480	736-2710		101/2	8x8	53/4	13.75
1481	736-2720		121/2	8x10	6	13.88
1482	736X2730	2727	141/2	8x12	61/2	14.87
1483	736X2740		161/2	8x14	7	12.02
1484	736X2750		181/2	8x16	73/4	12.78
1485	736X2760		20%	12x18	15	24.98

Top-Quality Metal Cabinets and Racks



Highly desirable where quick access to Interior is desired. The frame is \%" aluminum with black texture finish; body is .057 aluminum finish in smooth white enamel. One-piece body is easily detached exposing the interior components. No fasteners are used which are exposed on the visible surfaces. Furnished with rubber feet.

Marin Tunn	Dimensions in Inches								
Mfr's Type	A	В	C	PW	PH	PD			
RC-11101	8	12	10	11%	7%	91/2			
Stock	M	fr's	1	EA	СН				
No.	T	ype	1-24	25-	-34	35-Up			
720 0005	DO.	44404	00.0	0 0 5	50	00 70			



Offers excellent visibility of panel mounted components. Attractive, functional 1/2" aluminum body and .057" aluminum panel area in a combination of black texture and smooth white enamel. One-piece body can be quickly removed exposing entire interior. No visible fasteners. With rubber feet, SC-12100; 1 knockout centered.

Mfr's	Dimensions in inches									
Type	Α	В	PW	D	E	F				
SC-12100 SC-12101	12	10	11%	35/64 87/16	3 % 2 %	41/a 31/16				

Stock	Mfr's	EACH				
No.	Туре	1-24	25-34	35-Up		
736-7000 736-7001	SC-12100 SC-12101	13.13 18.20	10.50 16.35	7.00 14.50		



Dramatic styling is practical and adaptable to many types of instruments. Permits the Installation of switches, dial lights, and other components to meet specialized requirements. Provides the adaptability of a custom enclosure in an assembled unit. Sleek all aluminum construction combines beauty, utility and sturdiness. The ½" body and sides are black texture enamel; 1-pc. 057" aluminum panel is finished in white enamel. No visible fasteners. Shipped completely assembled from stock. Type SC-13100 does not have removable back panel.

Mfr's Type	Dimensions in Inches								
	A	В	C	PW	E	F			
SC-13100	511/32	10	811/16	9%	1%	43/32			
SC-13100	961/84	14	10%	13%	3	5			

Stock	Mfr's	EACH				
No.	Type	1-5	6-9	10-Up		
736-7025	SC-13100	18.70	16.80	14.90		
736-7026	SC-13101	38.16	34.30	28.60		

CLASSIC II CABINETS Double Rim Aluminum Frame Around the Front For Use With Standard 19" Rack Panels

• Gold, Gray or Royal Blue Textured Vinyl Finish

Combine rectilinear outlines with innovative features to meet critical Combine rectilinear outlines with innovative features to meet critical engineering demands. Double rim 6063-T5 aluminum frame around front of cabinet. Sides, top and bottom are .060 aluminum. Front and rear mounting rails tapped 10-32 with W.E. spacing. Accept standard 19" panels. Panel-to-panel depth, 20%". Heavy-duty aluminum handle at each end for convenient protability. Vinyl textured finish provides attractive appearance and extra durability. Chassis support is 16-gauge steel. Overall depth, 21%", Choice of three colors: Gold Textured (GD), Gray Textured (GT), or Royal Blue Textured (RB). Textured (RB)

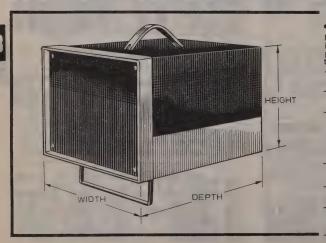
ORDERING NOTE: find Type No. desired in table, then read across line to color wanted to find complete Stock No. For example, Type AGC-9267 in Gold is Allied Stock No. 736U0503. *Panel space.

	CLASSIC II CABINETS											
Type	Stoc	Stock No.			, In.	Wt.,		EACH				
AGC-	GD	GT	RB	Ht.	PS*	Lbs.	1-4	5-9	10-Up			
9267 9268 9269 9270 9271	736U0503 736U0506 736U0509 736U0512 736U0515	0504 0507 0510 0513 0516	0505 0508 0511 0514 0517	6% 8% 10% 11%	5¼ 7 8¾ 10½ 12¼	19 20 22 23 15	119.32 125.75 128.76 133.10 138.44	96.50 101.65 104.10 107.60 111.90	85.75 90.35 92.50 95.65 99.50			
9272 9273 9274 9275 9276	736U0579 736U0582 736U0585 736U0588 736U0591	0580 0583 0586 0589 0592	0581 0584 0587 0590 0593	15% 17% 18% 20% 22%	14 15¾ 17½ 19¼ 21	26 28 29 31 32	142.70 148.13 152.48 155.73 160.90	115.40 119.75 123.25 125.90 130.10	102.55 106.45 109.55 111.90 115.65			
9277 9278 9279 9280	736U0594 736U0597 736U0600 736U0603	0595 0598 0601 0604	0596 0599 0602 0605	24% 25% 27% 27% 29%	22¾ 24½ 26½ 28	34 35 37 38	165.25 169.84 174.18 177.86	133.60 137.30 140.80 143.80	118.75 122.05 125.15 127.80			

DOORS FOR CLASSIC II CABINETS

For use on Classic II cabinets, but will fit any rack or cabinet with 19" panel space by attaching to panel mounting rails. Made of 1/4" 505-H36 aluminum alloy. Plated flush type latch. Stop fits on one mounting rail, hinged door fits on the other rail. White or Sand textured enamel finish.

Type	Stock I	lo.	Ht.,	Wt.,		EACH	
AGD.	S	WH	In.	Lbs.	1-4	5-9	10-Up
367	736U0626	0627	51/4	1 3/4	12.02	9.71	8.75
368	736U0630	0631	7	21/4	14.03	11.35	10.10
369	736U0634	0635	8¾	3	15.48	12.50	11.10
370	736U0638	0639	101/2	31/4	16.95	13.70	12.15
371	736U0624	0643	121/4	3¾	18.12	14.65	13.00
372	736U0646	0647	14	41/4	18.54	15.00	13.30
373	736U0650	0651	15%	43/4	20.96	16.90	15.05
374	736U0654	0655	711/2	51/4	22.63	18.30	16.30
375	737U0658	0659	191/4	5¾	24.22	19.60	17.40
376	736U0662	0663	21	61/4	25.80	20.90	18.55
377	736U0666	0667	22¾	6¾	27.05	21.85	19.45
378	736U0670	0671	241/2	71/4	28.31	22.90	20.35
379	736U0674	0675	261/4	73/4	29.98	24.20	21.50
380	736U0678	0679	28	81/4	32.06	25.90	23.05



SHOWCASE CABINETS

• For Desktop or System

• Lightweight Aluminum

Handsome, sturdy cabinets for use as desktop instrument cases, equipment systems, racks, or portable units. Lightweight, sturdy aluminum—top, sides and bottom are .050"; front panel is .090", rear panel is .050". Recessed handle.

Perfect Portable Cabinet

Front, rear panels and bail are included with each unit. Aluminum chassis available as accessory. Available in Black Textured and White (BT) and Royal Blue and White (RB).

SHOWCASE

Mfr's Type BB-1800 BB-1801 BB-1802 BB-1803	Stock No.					Wt.	EACH	
Туре	BT	RB	н.	W.	Dp.	Lbs.	1-14	15-Up
	736-1010	736-1011	67/18" 67/18"	5½" 85/16"	11"	21/2	41.42	37.05 38.50
BB-1802	736-1012 736-1014	736-1013 736-1015	83/18"	51/2"	11"	3	42.84 42.50	38.15
BB-1803 BB-1804	736-1016 736-1018	736-1017 736-1019	83/18" 83/18"	85/18" 111/18"	11"	31/4	44.42 46.26	39.90 41.55
BB-1808	736-1020	736-1021	915/16"	111/18"	11"	41/4	46.51	41.75

ALUMINUM CHASSIS FOR SHOWCASE

Stock	Mfr's					Wt.	EACH	
No.	Туре	Fits	L.	W.	H.	Lbs.	1-9	10-Up
736-1100 736-1110 736-1120	BBC-1821 BBC-1822 BBC-1823	BB-1800-02 BB-1801-03 BB-1804-08	9 ³¹ / ₃₂ " 9 ³¹ / ₃₂ " 9 ³¹ / ₃₂ "	4 ²⁹ / ₃₂ " 7 ¹¹ / ₁₈ " 10 ¹⁵ / ₃₂ "	2" 2" 2"	½ ¾ 1	4.38 5.13 6.13	3.50 4.10 4.90

HIGHLY EFFICIENT "TRANS-AIRE" BLOWERS

- Protect Costly Electrical Equipment from Heat Damage
- Fiberglass Filter Included with Each Model

Highly-efficient blowers for broadcasting and other applications. Types with Suffix "A" operate both as an intake or exhaust fan. Others exhaust only. All have low noise levels, permanently lubricated bearings, standard EIA notching for mounting to racks or cabinets. "Highest air displacement at 0° static pressure. UL Approved. 24" 3-wire cord. 110-130 V, 60 Hz AC. Replacement filters at right.

MODEL B-23A. Two speed. 1450/1250 RPM, 125/100 watt shaded pole motor.

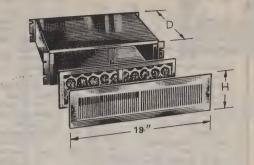
MODEL B-25A. Two speed. 1420/1075 RPM, 375/200 watt shaded pole motor.

MODEL B-27A. Two speed. 1350/1150 RPM, 550/350 watt shaded pole motor.

B-50 Blower. Designed to blow air through $12\frac{1}{2}$ " slats on top of unit. 3150 RPM shaded pole motor. 80 watts.

B52 Blower. Has two extra wide small dia. centrifugal blower wheels. Lubricated from 25°F to 250°F, 3000 RPM shaded pole motor. 80 watts.

B-54 Blower. Dual slow speed, low velocity centrifugal blower wheels. Fan-cooled, rubber mounted, shaded pole motor. 1550 RPM, 60 watts.



DISPOSABLE FILTERS

Stock	Mfr's	Use	EACH			
No.	Туре	With	1-24	25-49	50-Up	
736-1300	BF-24	B-23A, B-50	3.13	2.50	1.50	
736-1301	BF-26	B-25A	3.50	2.80	1.70	
736-1303	BF-28	B-27A	4.00	3.20	1.90	
736-1307	BF-53	B-52	3.50	2.80	1.70	
736-1309	BF-55	B-54	3.75	3.00	1.80	

BLOWERS

Stock	Mfr's	Size Inches Height x	Cubic Ft. Per Min.*		Wt.	EACH			
No.	Type	Depth	High	Low	Lbs.	1-9	10-14	15-Up	
736X1204	B-23A	3½×12	180	130	15	111.89	90.45	80.40	
736X1206	B-25A	5¼×14½	350	160	28	127.76	103.30	91.80	
736X1208	B-27A	7 ×14½	5 00	280	30½	143.54	116.00	103.10	
736X1210	B-50	3½x 6 ¹³ / ₁₈	150	000	11½	108.72	87.90	78.10	
736X1212	B-52	5¼x 7 ¹¹ / ₁₆	150	000	14¼	112.31	90.80	80.70	
736X1214	B-54	7 x10 ³ / ₁₆	300	000	19	143.87	116.35	103.40	

UNIVERSAL METER CASES

Sloping-front meter housings. Panel cut for 2" meters; knockout ring enlarges hole for 3" meters. Case top has two %6" knockouts for mounting terminal posts or feed through insulators. Type CMA1930 accepts small components as well as meter. Steel; †aluminum. Use aluminum case to minimize magnetic field. In light gray num case to minimize magnetic field. In light gray hammertone.



Stock	Mfr's	Size, In. HxWxD	ize. In. Wt.		EACH			
No.	Туре		Lbs.	1-9	10-49	50-99	100-Up	
736-2901 736-2903 736-2902	CM1935* CMA1936† CMA1930†	4½x4x4 4½x4x4 4½x6x4	1 3/4 1	3.50 4.13 6.88	2.80 3.30 5.50	2.10 2.50 4.15	1.90 2.20 3.70	

CHASSIS MOUNTING BRACKETS

Heavy-gauge steel. Accommodate chassis 3" high, except *4" chassis. Black enamel. Sold only in pairs.

					PE	R PA	IR
Stock No.	Mfr's Type	Ht.	Depth in.	Wt. Lbs.	1- 49	50- 99	100- Up
736-4503 736-4500 736-4504	MB-448	6½ 6½ 6½	8 10 11	1½ 1¾ 2		2.60 2.60 3.00	1.70
736-4501 736-4505 736-4502	MB-460	6½ 6½ *8½	12 13 13	2 2½ 3	4.00	3.40 3.20 4.10	2.10



MINIATURE AMPLIFIER FOUNDATION

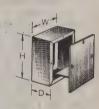
Type CA-1754. Extremely compact, sturdily-built. Ideal for portable PA amplifiers, recording preamplifiers and more. Chassis is 2" high, 7" wide and 5" deep. With the foundation cover fastened in place, the entire unit stands only 6" high. Rigid steel construction. Removable cover is heavily perforated to allow full circulation of air—attached to sides of chassis with four self-tapping screws. Black Rinkletex finish. Shpg. wt. 1½ lbs. T36-293. Each 5.70 100-Up. Each 5.35



MINIATURE UTILITY CABINETS WITH CHASSIS

Sturdy steel cabinets with built-in chassis attached to Sturdy steel capinets with built-in chassis attached to front panel. Removable front and rear panels fasten with self-tapping screws. Panels fit case flanges snugly—assure low RF leakage; protect components from dust and damage. Heavy-duty Black Rinkletex finish. Shpg. wts.: Mfr's Type C-1794, 1 lb.; C-1976, 134 lbs.; C-1798,

-			Cab.	Chassis		EACH	1
	Stock No.	Mfr's Type	HxWxD Inches	HxWxD Inches	1- 49	50- 99	100- Up
7	736-1919 736-1921 736-1923	C-1796	6x5x4	1 x4%x2% 1%x4%x3% 1%x4%x5%	4.38	3.50	2.30



PRESTIGE BALL-CORNERED VERSA-CABINETS

Have frame, two ball-cornered sides, perforated metal back, solid bottom plate, 2 support channels. $1\% \times 19''$ opening in back. Front, back, top, bottom take standard 19" panels. Inside width is 22%''. Inside depth is 15''; overall size is $152\%_{22}$. Has 4 rubber non-skid feet. Hammertone gray finish.



Stock	Type		l Ht. hes	Overall Height	Wt.		EACH	
No.	Type PC-	F	R	Inches		1-9	10-14	15-Up
736U5400 736U5401 736U5402 736U5403 736U5404	1700 1701 1702 1703 1704	5¼ 7 8¾ 10½ 12¼	3½ 5¼ 7 8¾ 10½	8% 10% 12% 14 15%	28 29 31 34 35	47.85 50.60 51.94 58.70 61.87	43.00 45.45 46.65 52.75 55.60	38.20 40.40 41.50 46.90 49.40

SLOPING PANEL PRESTIGE CABINETS

A very practical and attractively designed enclosure with a perforated top that opens completely. Panel trim bar is removable to permit removal of panels to which chassis have been attached. Uses standard 19" panels. Safety shielded panel slots are used as carrying handles. Gray Hammertone finish

Stock	Mfr's	Height x Depth	Space		EACH	
No.	Type	Inches	Inches	1-14	15-24	25-Up
736U1813						45.40
736U1815	C-1557	14%x16%	10%	65.55	58.85	52.30



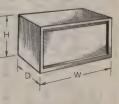
PERFORATED STEEL TOP PANEL

Stock	Туре	Size	Size Wt.		EACH	
No.	PC-	Inches	Lbs.	1-9	10-14	15-Up
736U5405	1710	12¼x19	21/2	7.88	6.30	4.20

MULTI-PURPOSE FUTURA VERTICAL CABINETS

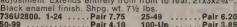
Removable top, side; front panel flange-held—no screws. Body, rear panel 20-gauge steel; front panel vertical, 18-gauge. Four rubber feet on base. Chassis mounts to base, front or rear panel. BB = Dk. Blue Textured. HG = Gray Hammertone. Av. shpg. wt. 8 lbs.

	Stock	. No	Size		EA	CH	
Туре	BB	HG	(HWD)	1-24	25- 49	50- 99	100- Up
MD-196	0 736-4973 1 736-4975 2 736-4977	736-4976	8x14x9	13.28	11.95	10.60	9.95



PRESTIGE SUPPORTING ANGLES

CE-2219. Heavy-duty steel. For attaching to rails of Prestige Relay Racks. Slotted to provide infinite vertical adjustment. Extends entirely from front to rear. 21x3x2¾". Black enamel finish. Shpg. wt. 7½ lbs. 736U2800. 1-24 Pair 7.75 25-49 Pair 6.20 50-99 Pair 4.10 100-Up Pair 3.85





Quality Hardware

HARDWARE INDEX

Bumpers, Rubber	
H. H. Smith	298
Russell	298
Cable Clamp Holders	
H. H. Smith	298
Captive Hardware	
Raytheon	300
Grommets, Plastic	
H. H. Smith	298
Russell	298
Grommets, Rubber	
H. H. Smith	298
Grommets, Rubber H. H. Smith Russell	298
Handles, Brass Panel	4-1
H. H. Smith	301
Handles, Folding Brass Handle	
H. H. Smith	301

Handles, Leather Equipment	
H. H. Smith	301
Handles, Nickel-Plated Brass	001
USECO	204
Handles, Utility 8000 the 12 to	
Bud	301
Hex Nuts	
Hex Nuts H. H. Smith	299
Hole Plugs	
H. H. Smith	
n. n. smith	230
Instrument Panel Hardware	
USECO	
Lockwashers	
H. H. Smith	299
Lugs, Hot Tinned Solder	
H. H. Smith	
II. II. SIIII III	233

5
99
99
00
00
99
00
00
00

Spacer Bushings, Nylon	
H. H. Smith	298
Spade Bolts	
H. H. Smith	299
Snaps and Studs	
Nuway	300
Spring Clips	
H. H. Smith	300
Lee Bee	300
Washers, Counter Sunk	
H. H. Smith	299
Washers, Flat	
H. H. Smith	299
Washers, Shoulder	
H. H. Smith	

RUBBER GROMMETS

Molded in combination or blends of natural and synthetic rubber compounds or recialmed rubber. For a wide variety of Industrial and commercial applications. Sold in pkgs. of 100.



Stock	Mfr's	A	В	Groove		Pkg.	/100
No.	Туре	O.D.	I.D. In.	D In.	E In.	1-9	10- Up
	GOB-215	11/32 11/32 11/32 11/32 7/16 1/2	7/64 1/8 1/8 3/16 3/16	1/16 1/16 3/16 1/16 1/16	13/64 3/16 1/4 5/16 5/16	2.25 2.83 5.10 3.38 4.23	1.50 1.88 3.40 2.25 2.82
566-1233 566-1264 566-1276	GOB-2172 GOB-220 GOB-2211 GOB-3251 GOB-2252	1/2 9/16 9/16 5/8 5/8	1/4 1/4 9/32 1/4 5/16	1/32 1/16 1/16 1/8 1/16	5/16 3/8 13/32 3/8 7/16	4.23 4.50 5.38 8.48 6.78	2.82 3.00 3.58 5.65 4.52
566-1270 566-1242	GOB-2258 GOB-2261 GOB-1101-1 GOB-1101 GOB-230	5/8 3/4 3/4 3/4 13/16	3/8 1/4 1/8 7/16 1/2	1/16 1/16 1/8 1/16 1/16	17/ ₃₂ 9/ ₁₆ 17/ ₃₂ 9/ ₃₂ 9/ ₃₂ 5/ ₈	5.38 7.35 9.33 7.63 9.03	3.58 4.90 6.22 5.08 6.02
566-1244 566-1245	GOB-1102 GOB-1102-2 GOB-1103 GOB-1105	1 ½16 1 ½16 1 ½8 1 ½8	1/2 1/2 5/8 13/16	1/16 1/8 1/16 3/64	13/16 13/16 7/8 15/16	13.25 13.25 15.80 15.80	8.83 8.83 11.29 11.29

RUBBER HARDWARE

RECESSED BUMPERS

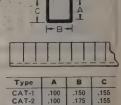
Molded of natural and synthetic rubber compounds or reclaimed blends, *Indicates bumpers comes with washer insert. Bumpers eliminate scratching, chafing. Shpg. wt. per pkg. 8 oz. Sold in packages of 100.



				Dimensions in Inches						Pkg.	/100
Stock No.	Type REC-	Fig.	A	В	C	D	E	F	1- 9	10- Up	
566-1415 566-1420 566-1421 566-1433	2062 2082 2082S 2090	A A A	3/8 5/8 5/8 5/8	1/4 1/2 1/2 5/8	3/16 1/4 1/4 7/16	1/16 1/4 1/4 3/16	1/4 5/16 5/16 5/16	5/32 5/32 5/32 .147	3.38 3.95 6.78 6.22	2.25 2.63 4.52 4.15	
566-1424 566-1439 566-1406	2084S 2096S 207	*A *A B	3/4 15/16 1/2	3/8 5/8 1/4	3/16 7/16 1/8	3/16 3/16 1/8	7/16 7/16 1/4	3/16 7/32 1/8	11.58 14.50 2.83	7.72 10.36 1.88	
566-1407 566-1418 566-1430 566-1426	207S 2081S 2088 2085	*B *B B	1/2 5/8 5/8 3/4	1/4 5/16 5/16 5/16 3/8	1/8 3/16 3/16 3/16 3/16	1/8 1/8 1/8 1/8 3/16	1/4 1/4 5/16 5/16	1/8 3/16 1/8 5/32	4.78 6.50 3.65 5.40	3.18 4.33 2.43 3.60	
566-1427 566-1411 566-1442 566-1443	2085S 209S 2097 2097S	*B *B *B	3/4 1 3/16 1	3/8 1/2 1	3/16 1/4 5/8 5/8	3/16 1/4 3/8 3/8	5/16 5/16 5/16 5/16 5/16	5/32 5/32 5/32 5/32 5/32	9.03 11.58 14.37 14.90	6.02 7.72 9.58 10.64	

EXTRUDED "CATERPILLAR" GROMMETS-1234" LONG





Conform to MIL MS21266. Molded of Mylar. Meet MP-20693A Type 1 requirement.

Fits	Pk	g. of 10		Pkg. of 25			
	Stock No.	Type	EACH	Stock No.	Type	EACH	
.015052 .052085 .085128		CAT-2A	7.68	566-6003 566-6004 566-6005	CAT-2B	15.84	

HIGH QUALITY GROMMETS

Exceptional aging qualities and high dielectric properties. Oil resistant. Dimension "C" is panel hole diameter; "B" is maximum cable diameter. Dimension "E" (panel thickness) is %₁₆" except for Type 2189, which is %₃₂". Package of 100. Av. shpg. wt. per 100, 8 oz.



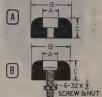
	A
T	THE THE PARTY OF T
1	
	F B → E

Stock	Mfr's	A	В	C	D	PER	PKG. (OF 100
No.	Type	In.	ln.	In.	ln.	1-9	10-24	25-Up
920-2185 920-2172 920-2170 920-2174 920-2175	2185 2172 2170 2174 2175	5/18 7/16 5/8 5/8 21/32	1/8 3/16 1/4 5/16 3/8	3/16 5/16 5/8 7/16 1/2	3/16 3/16 1/4 1/4 1/4	3.24 2.97 3.38 3.24 3.38	2.59 2.38 2.70 2.59 2.70	2.16 1.98 2.25 2.16 2.25
920-2177 920-2186 920-2187 920-2188 920-2189	2177 2186 2187 2188 2189	3/4 1 ½16 1 ½8 1 ½16 1 1/16	7/16 1/2 5/8 9/16 3/4	9/16 3/4 7/8 13/16 7/8	1/4 5/16 5/16 5/16 5/16 5/32	3.38 7.16 7.29 7.16 7.02	2.70 5.72 5.83 5.72 5.62	2.25 4.77 4.87 4.77 4.68
******** D				4	05	O	- A - 1	- 11

VINYL. Du									
sistant. "E	'' is 1/	16" for	all.	Av. st	ipg.	wt. per	r 100,	8 oz	
920-2145	2145	11/32	1/8	1/4	3/16	1.49	1.19	.99	
920-2146	2146	7/16	3/16	5/16	7/32	1.82	1.46	1.22	
920-2147		9/16	1/4	3/8	1/4		1.78		
920-2148	2148	8 %	3/8	1/2	1/4	2.36	1.89		
		12/					0.00		

RECESS RUBBER BUMPERS

Recess rubber bumpers for military, industrial and commercial applications. Types 2195 thru 2198 (Figs. B) are supplied with ½" mounting screw and hex nut, for panels up to ¼" thick. Screw has 6-32 thread except 2195, which has 8-32 thread. *With molded-in metal washer. Package of 100. Av. shpg. wt. per 100, 8 oz. Recess rubber bumpers for



Stock	Mfr's	e:-	Α	В	С	PRICE	PER PKG. OF 100			
No.	Type	rig.	ln.	ln.	In.	1-	10- 24	25- 99	100- Up	
920-2192 920-2193 920-2194 920-2184 920-2135	2192 2193 2194 2184 2135	A A A	7/32 1/4 9/32 9/32 3/8	17/32 5/8 3/4 5/8 31/32	.1/4 5/16 3/8 9/32 3/8	2.30 2.97 4.46 4.46 6.75	1.84 2.38 3.56 3.56 5.40	1.53 1.98 2.97 2.97 4.50	1.31 1.70 2.55 2.55 3.86	
920-2195 920-2196 920-2197 920-2198	2195 2196 2197 2198	B* B B	3/8 7/32 1/4 9/32	31/ ₃₂ 17/ ₃₂ 5/ ₈ 3/ ₄	3/8 1/4 5/16 3/8	13.50 9.05 9.72 11.21	10.80 7.24 7.78 8.96	9.00 6.03 6.48 7.47	7.71 5.17 5.55 6.40	

SNAP BUTTON **HOLE PLUGS**

Metal plugs for covering punched or drilled holes. Spring action prongs are nick-el plated steel; give a firm grip. *Type 656 is vented. Package of 100. Av. shpg. wt.



E	Stock	Mfr's	Hole	l A	В	C	PRICE	PER PI	(6./100
ı	No.	Type	In.	In.	In.	In.	1-9	10-24	25-Up
l	920-0650	650	1/4	13/32	15/64	1/16	3.71	2.97	2.48
ı	920-0651	651	5/16	7/16	1/4	1/18	3.71	2.97	2.48
ľ	920-0652	652	3/8	1/2	15/64	1/10	3.71	2.97	2.48
ı	920-0653	653	1/2	21/32	9/32	5/64	4.05	3.24	2.70
P	929-0654	654	5/8	13/18	19/64	5/64	5.40	4.32	3.60
ı	920-0855	655	3/4	53/64	19/64	5/64	5.40	4.32	3.60
ı	920-0608	608	7/8	11/18	19/64	1/16	6.08	4.86	4.05
ı	920-0612	612	1	19/64	21/64	3/32	7.09	5.67	4.73
ľ	920-0656	656°	1	15/32	19/64	5/64	22.00	16.97	14.85
в									

SNAP-LOCK **PLASTIC GROMMETS**

Identical halves snap tightly together, lock in place. Provides rigid bearing surface, greater dielectric, extreme chemical and wear resistance. The two halves form complete grommet. Dimension "D" is "ha". "E" is ¼". Package of 100. Shpg. wt. per 100, 8 oz.



Canal	206-1-	A D	B C	PRICE PER PKG. OF 100				
Stock No.	Mfr's Type	In.	in.	In.	1-	10-	25- 99	100- Up
920-2178 920-2179 920-2180	2178 2179 2180	3/16 1/4 3/8	5/16 3/8 1/2	7/16 1/2 5/8	4.46 4.72 4.93	3.56 3.77 3.94	2.97 3.15 3.29	2.55 2.70 2.82

NYLON SPACER BUSHINGS

Tough spacer bushings are molded of corrosion-resistant nylon. Non-conductive; ideal for use where insulation of electronic components is essential. Meet MIL-P-20683A specifications. Can be used for mounting variable capacitors above the chassis, for mounting sub-panels, etc. Sold in packages of 100 only. Av. shpg. wt. per 100. 8 oz per 100, 8 oz.

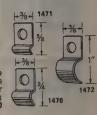


- D.

Stock No.	Mfr's Type	I.D. (A)	B In.	C In.	D In.		RICE P KG./1	
NO.	Type	(A)		1111.	119.	1-9	10-24	25-Up
920-2534 920-2535 920-2536 920-2537 920-2538	2534 2535 2536 2537 2538	#4 (.115) #6 (.140) #8 (.170) #10 (.200) 1/4 (.260)	.235 .290 .344 .399 .513	1/4 1/4 3/8: 3/8 3/8	.147 .170 .205 .260 .312	3.11 3.24 3.38 3.65 4.05	2.70 2.92	2.16 2.25 2.43

CABLE CLAMP HOLDERS

Cadmium plated steel cable clamps in choice of three sizes for ½", ½" or ½" diameter cables, Each has a #8 mounting hole. Sold in packages of 100 only. Av. shpg. wt. per 100, 8 oz.



Stock	Mfr's	Cable Dia		w.	PRICE PER PRG./100			
No.	Туре	in.	In.	In.	1-9	10-24	25-Up	
920-1471 920-1470 920-1472	1471 1470 1472	1/8 1/4 1/2	5% 3% 1	3/8 3/8 3/8	1.22 1.15 1.35	.97 .92 1.08	.81 .77 .90	
320-14/2	14/2	/2		/8	1.33	1.00	_	

Allied's Hardware for the Electronics Industry



WASHERS

Fiber, MIL-F-1148A. Grade CH. Shoulder height, .031. *I.D. x O.D. 4 oz.

Stock	Mfr's	*Size	PER P	PER PKG./100			
No.	Type	inches	1-9	10-Up			
920-2150 920-2151	2150 2151	.140x.375	1.83	1.46			
920-2152	2152	.110x.250	1.49	1.19			
920-2153 920-2154	2153 2154	.136x.312 .250x.500	1.83	1.46			
920-2155 920-2156	2155 2156	.172x.375 .196x.375	1.83	1.46			
920-2159 920-2157	2159 2157	.265x.500 .375x.750	2.57 3.31	2.05 2.65			
920-2158	2158	.385x.625	2.70	2.16			

Natural Nylon. Per MIL P-20693A.

920-2660	2660	.140x.375	2.97	2.38
920-2661	2661	110x.250	2.70	2.16
920-2662	2662	.136x.250	2.70	2.16
920-2664	2664	.250x.500	4.46	3.56
920-2665	2665	.172x.375	2.97	2.38
920-2666	2666	.196x.375	2.97	2.38
920-2669	2669	.265x.500	4.46	3.56
920-2667	2667	.375x.750	6.49	5.19
920-2668	2668	.385x.625	4.46	3.56



FLAT WASHERS

Fiber. MIL-F-1148A. Grade CH. $\frac{1}{16}$ " thick except 2166, $\frac{3}{2}$ ". Avg. wt. 2 oz. Pkg. of 100.

920-2160	2160	.136x.250	1.15	.92	
920-2161	2161	.110x.250	1.15	.92	
920-2162	2162	.140x.375	1.15	.92	
920-2163	2163	.172x.375	1.29	1.03	
920-2164	2164	.196x.375	1.29	1.03	
920-2165	2165	.250x.500	1.29	1.03	
920-2166	2166	.250x.500	2.30	1.84	
920-2168	2168	.385x.625	1.49	1.19	
920-2169	2169	.375x.750	2.43	1.94	

Nylon. MIL-P-20693A. $\frac{1}{16}$ ". 2514, 15: .047" Type 2517: .062". 2676: $\frac{1}{12}$ ". 2 oz.

920-2670	2670	.136x.250	1.62	1.30
920-2671	2671	110x.250	1.62	1.30
920-2672	2672	.140x.375	1.89	1.51
920-2515	2515	.140x.312	1.62	1.30
920-2673	2673	.172x.375	1.89	1.51
920-2674	2674	196x.375	1.89	1.51
920-2517	2517	.200x.437	2.43	1.94
920-2675	2675	.250x.500	2.84	2.27
920-2676	2676	.250x.500	4.46	3.56
920-2678	2678	.385x.625	3.38	2.70
920-2679	2679	.375x.750	5.27	4.21



FLAT WASHERS Steel, nickel plated.

	#4 #6 #8 #10 '4"	.81 . .95 . 1.01 . 1.15 .	70 65 76 81 92 03
--	------------------------------	------------------------------------	----------------------------------

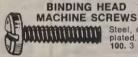


Steel, cadmium plated. 3 oz.

Stock Mfr's Size		Cina	PER PI	(G./100
No.	Туре	Inches	1-9	10-Up
920-1173	1173	2-56x1/4	1.35	1.08
920-1174	1174	2-56x1/2	1.42	1.13
920-1175	1175	.2-56x¾	1.49	1.19
920-1177	1177	4-36x1/4	1.42	1.13
920-1183	1183	4-36x½	1.55	1.24
920-1350	1350	4-40x1/4	1.42	1.13
920-1352	1352	4-40x1/2	1.55	1.24
920-1354	1354	4-40x¾	1.69	1.35
920-1000	1000	6-32x1/4	1.28	1.03
920-1001	1001	6-32x%	1.35	1.08
920-1002	1002	6-32x½	1.42	1.13
920-1355	1355	6-32x%	1.49	1.19
920-1356	1356	6-32x3/4	1.55	1.24
920-1357	1357	6-32x1	1.89	1.51
920-1358	1358	6-32x2	3.92	3.13
920-1006	1006	8-32x1/4	1.62	1.30
920-1007	1007	8-32x%	1.69	1.35
920-1008	1008	8-32x1/2	1.76	1.40
920-1010	1010	8-32x%	2.03	1.62
920-1359	1359	8-32x¾	2.16	1.73
920-1360	1360	10-32x1/2	2.43	1.94
920-1361	1361	10-32x¾	2.70	2.16
920-1362	1362	10-32x1	3.11	2.48

Brass, nickel plated, 3 oz.

920-1047	1047	4-40x1/4	2.57	2.05
920-1048	1048	4-40x3/6		2.16
920-1052 920-1058			3.51 5.81	2.81 4.64



Steel, cadmium plated. Pkg. of 100. 3 oz.

			PER PE	
Stock No.	Mfr's Type	Size Inches	1-9	10-Up
920-1369 920-1370 920-1372 920-1373	1369 1370 1372 1373	2-56x¼ 2-56x½ 4-40x¼ 4-40x½	1.35 1.42 1.49 1.55	1.08 1.13 1.19 1.24
920-1374 920-1375 920-1425 920-1426 920-1427	1374 1375 1425 1426 1427	4-40x¾ 6-32x¾ 6-32x¼ 6-32x¾ 6-32x½	1.69 1.35 1.35 1.42	1.35 1.08 1.08 1.08 1.13
920-1377 920-1378 920-1429 920-1430 920-1380	1377 1378 1429 1430 1380	8-32x ³ / ₆ 8-32x ³ / ₆ 8-32x ³ / ₆ 8-32x ³ / ₂ 10-32x ³ / ₂	1.55 1.62 1.69 1.76 2.43	1.24 1.30 1.35 1.40 1.94



SPADE BOLTS

Steel cadmium plated. Av. shpg. wt. 8 oz.

Caroli	Mfr's	C:	PER PI	(G./100
Stock No.	Type	Size Inches	1-9	10-Up
920-1500	1500	6-32x5/16	6.08	4.86



Cadmium-plated, except 1196, 1199 brass nickel plated. 4 oz.

Stock	Mfr's	Size	PER PKG./100		
No.	Туре	Inches	1-9	10-Up	
920-1363 920-1364 920-1365 920-1179 920-1180 920-1366	1363 1364 1365 1179 1180 1366	2-56x¾6 3-48x¾6 4-40x¼ 6-32x¼ 6-32x¼6	1.62 1.62 1.62 1.62 1.62	1.30 1.30 1.30 1.30 1.30	
920-1181 920-1367 920-1368 920-1398 920-1199 920-1196	1181 1367 1368 1398 1199 1196	8-32x ⁵ / ₁₆ 10-32x ³ / ₆ 14-20x ⁷ / ₁₆ 4-36x ³ / ₄ 3/ ₆ -32x ³ / ₂ x ³ / ₃₂ 1 ⁸ / ₂ 2x ³ / ₁₆ x ⁸ / ₆₄	1.76 2.03 3.38 1.62 3.38 4.05	1.40 1.62 2.70 1.30 2.70 3.24	



BRASS HEX NUTS

	NICK	ei piated. Pi	kg. 01 1	00. 8 oz
920-1168 920-1189		4-40x¼ 6-32x¼	2.57	2.05
920-1190	1190	6-32x5/16	3.38	2.70
920-1192 920-1193		8-32x5/16 10-32x5/16	3.38	2.70
920-1187		1/4-32x7/16	3.38	2.70

NYLON HEX NUTS

PKg. 01 100. (4 02.)					
920-2554	2554	4-40x1/4	9.45	7.56	
920-2555	2555	6-32x5/16	9.45	7.56	
920-2556	2556	8-32x11/32	9.45	7.56	
920-2557	2557	10-32x3/6	9.45	7.56	



EXTERNAL LOCKWASHERS

Steel, cadmium plated. Pkg. of 100.

920-1139 920-1140 920-1141 920-1142	1140 1141 1142	#4 #6 #8 #10	.74 .74 .81	.59 .59 .65
920-1144 920-1143		1/4 3/8	1.08	.86 2.05



INTERNAL **LOCKWASHERS**

Steel, cadmium plated. *Narrow rim. Pkg. of 100. 2 oz.

920-1118	1118	#2	1.22	.97
920-1119	1119	#3	1.08	.86
920-1127	1127	#4	.74	.59
920-1128	1128	#6	.74	.59
920-1129	1129	#8	.81	. 65
920-1130	1130	#10	.81	. 65
920-1132	1132	1/4"	1.08	.86
920-1131	1131	3/8	2.57	2.05
920-1145*	1145*	3/8"	2.57	2.05
920-1146	1146*	15/32"	2.70	2.16



COUNTER SUNK WASHERS

d Dkg of 100 2 o

920-1115 920-1116 920-1117	1116	#8	2.57 2.89 3.38	2.05 2.27 2.70
----------------------------------	------	----	----------------------	----------------------

SELF-TAPPING SCREWS



HARDWARE

1 ROUND HEAD A-SHARP POINT

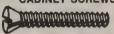
186-1-	ei	PER PKG./180		
Type	Inches	1-9	10-Up	
1801	4x1/2	1.55	1.24	
1802	6x1/4	1.62	1.30	
1803	6x%	1.78	1.40	
1804	6x1/2	1.89	1.51	
1805	8x3/8	2.09	1.67	
1806	8x1/2	2.23	1.78	
	1801 1802 1803 1804 1805	Type Inches 1801 4x½ 1802 6x¾ 1803 6x¾ 1804 6x½ 1805 8x¾	Mfr's Size 1-9	

2 ROUND HEAD Z-BLUNT POINT

920-1807	1807	4x½	1.55	1.24
920-1808	1808	6x¼	1.62	1.30
920-1809	1809	6x¾	1.78	1.40
920-1810	1810	6x½	1.89	1.51
920-1811	1811	8x¾	2.09	1.67
920-1811 920-1812	1811 1812	8x% 8x½	2.09	1.67

3 SLOTTED HEX HEAD Z-BLUNT POINT 920-1830 1830 6x¹/₄ 920-1831 1831 6x³/₆ 1.78 1.96 1.40 920-1832 920-1833 920-1834 2.09 1832

CABINET SCREWS



Oval head. Steel, nickel plated. 1 lb.

Stock	Mfr's	Size	PER P	PER PKG./100		
No.	Type	Inches	1-9	10-Սր		
920-1382 920-1383 920-1111 920-1112	1383 1111	6-32x¾ 8-32x¾ 10-32x½ 18-32x¾	2.03 2.43 3.38 3.51	1.62 1.94 2.70 2.81		



Round Head. Natural color. 8 oz.

PER PKG./100 Mfr's Stock 10-Up 1.9 Inches 920-2520 2520 920-2522 2522 920-2523 2523 5.40 5.40 5.40 5.40 4.32 4.32 4.32 4.32 4-40x1/4 920-2523 2523 920-2526 2526 6-32x1/4 6-32x5/8 920-2527 2527 920-2530 2530 920-2531 2531 6-32x¾ 8-32x¾ 8-32x½ 5.40 5.40 5.40 4.32 4.32 4.32

Shpg. BINDING HEAD. wt. 8 oz 920-2500 | 2500 920-2502 | 2502 920-2503 | 2503 920-2504 | 2504 4-40x1/4 4-40x1/2 4.32 4.32 4.32 4.32 5.40 5.40 5.40 5.40 6-32x1/4 6-32x3/6 4.32 4.32 4.32 920-2505 2505 920-2507 2507 920-2511 2511 6-32x½ 6-32x¾ 8-32x½ 5.40 5.40 5.40

LOCKING TERMINAL LUGS

A wide selection of the most widely used Have selected of the most weeky week through #10. Designed for broad usage in military, industrial and commercial applications. Average weight per 100, 2 oz.



HOT TINNED SOLDER LUGS

A complete assortment of the most widely used solder lug styles. *Phosphor bronze. †Brass. Average weight per 100, 2 oz.

Stock	Mfr's		Thickness	Hole	Fig.	PER PKG./100		
No.	Туре		IIIIOKIIOSS	11010	· · · g ·	1-9	10-Up	
B20-1300	1410-4	1/2	.018	#4	Α	1.95	1.56	
920-1301	1410-6	7/6	.018	#6	A	1.95	1.56	
920-1302	1410-8	7/8	.018	#8	A	1.95	1.56	
920-1303	1410-10	67/64	.018	#10	A	2.10	1.68	
920-1304	1410-14	13/18	.018	1/4"	A	2.10	1.68	
920-1310	1411-4	47/84	.020	#4	В	1.95	1.56	
920-1311	1411-6	47/04	.020	#4	В	1.95	1.56	
920-1312	1411-8	47/64	.020	#8	В	1.95	1.56	
920-1320	1412-4	5/8	.018	#4	C	1.80	1.44	
920-1321	1412-6	5/8	.018	#6	C	1.80	1.44	
920-1322	1412-8	8/2	.018	#8	· C	1.80	1.44	
920-1330	1413-4	23/32	.018	#4	D	1.95	1.56	
920-1331	1413-6	25/32	.018	#6	D	1.95	1.56	
920-1332	1413-8	23/32	.018	#8	D	1.95	1.56	
920-1340	1414-4	13/18	.018	#4	E	1.95	1.56	
920-1341	1414-6	13/16	.018	#6	E	1.95	1.56	
920-1342	1414-8	13/18	.018	#8	E	1.95	1.56	
920-1343	1414-10	53/64	.018	#10	E	1.95	1.56	
920-8002	1415-4	41/64	.018	#4	F	1.95	1.56	
920-1351	1415-6	41/84	.108	#6	F	1.95	1.56	

Stock	Mfr's		Thickness	Hole	Fig.	PER PKG./100	
No.	Type					1-9	10-Up
920-1376	1485-6°	17/32	.012	#6	G	1.50	1.20
920-1381 920-1384	1486-6° 1488-4*	13/18 9/16	.012 .012	#6 # 4	M	1.50 1.50	1.20 1.20
920-1385 920-1386	1488-6° 1488-8*	⁹ /18 ⁹ /18	.012	#6 #8	H	1.50	1.20
920-1390 920-1391	1490† 1491†	3/4 15/18	.020	#10 #10	N	1.80	1.44
920-1392	1493†	11/8	.027	1/4"	R	3.75	3.00
920-1393 920-1394 920-1395 920-1396 920-1397	1494-6† 1494-8† 1495† 1496† 1497†	5/6 5/8 5/8 3/4 7/2	.020 .020 .020 .020 .020	#6 #8 #8 '\4" '\4"	J K L S	1.65 1.65 1.80 1.80 2.25	1.32 1.32 1.44 1.44 1.80

ALLIED'S HARDWARE

FINEST OF MATERIALS
 MACHINED TO CLOSE TOLERANCES
 WIDE ASSORTMENT OF STYLES AND TYPES





SOLDER



Allied® Quality Hardware

BRASS SPACERS



Round spacers for raising sub-panels, chassis, variable capacitors, etc. Durable cadmium-plated brass. Precision machined; lengths and outer diameters accurate to ±½2". Tapped bushings for threads indicated in tables. Sold in packages of 10. Av. shpg. wt., 6 oz.

ROUND-NON-THREADED 14" O.D.

Stock	Mfr's	Screw	Length	PRICE PER PKG./10			
No.	Туре	Size	Inches	1-9	10-24	25-Up	
920-8500	8700	4	1/8	.73	.57	.49	
920-8503	8703	4	3/16	.77	.61	.51	
920-2340	2340	4	. 1/4	.80	.64	.53	
920-8506 920-2341	8706 2341	4	5/18	.90	.72	.60	
		_	3/8	.93	.74	.62	
920-2342	2342	.4	: 1/2	1.06	.85	.71	
920-2343 920-2344	2343	4	3/4	1.46	1.17	.97	
920-8501	8701		1/4	1.71	1.37	1.14	
920-8504	8704	6.	3/16	.77	.61	.51	
920-2100	2100	6	1/4	.80	.64	.53	
920-8507	8707	6	5/16	.90	.72	.60	
920-2101	2101	6	3%	.93	.74	.62	
920-2102	2102	6	1/2	1.06	.85	.71	
920-2103	2103	6	3/4	1.46	1.17	.97	
920-2104	2104	6	1	1.71	1.37	1.14	
920-8505	8705	8	3/16	.77	.61	.51	
920-2105	2105	8	1/4	.80	.64	.53	
920-2106	2106	8	3/8	.93	.74	.62	
920-2107	2107	8	1/2	1.06	.85	.71	
920-2108	2108	8	3/4	1.46	1.17	.97	
920-2109	2109	8		1.71	1.37	1.14	

ROUND-THREADED 14" O.D.

Stock	Mfr's	Тар	Length	PRICE PER PKG./10			
No.	Type		Inches	1-9	10-24	25-Up	
920-2370	2370	4-40	1/4	.91	.73	.61	
B2U-8566	8766	4-40	8/18	.99	.79	.66	
920-2371	2371	4-40	3/8	1.04	.83	.70	
920-2372	2372	4-40	1/2	1.23	.98	.82	
920-8575	8775	4-40	5/8	1.42	1.14	.95	
920-2373	2373	4-40	3/4	1.79	1.43	1.19	
920-2374	2374	4-40	1 1	1.99	1.60	1.33	
920-2120	2120	6-32	1/4	.91	. 73	61	
920-8567	8767	6-32	8/16	.99	.79	.66	
920-2121	2121	6-32	3/8	1.04	. 83	.70	
920-2122	2122	6-32	1/4	1.23	.98	.82	
920-8573	8773	6-32	9/16	1.30	1.04	.87	
920-2123	2123	6-32	3/4	1.79	1.43	1.19	
920-2124 920-2126	2124	6-32	1,	1.99	1.60	1.33	
	2126	8-32	3/8	1.04	.83	.70	
920-2127	2127	8-32	1/2	1.23	.98	.82	
920-2128	2128	8-32	3/4	1.79	1.43	1.19	
920-2129	2129	8-32		1.99	1.60	1.33	

INSTRUMENT PANEL HARDWARE





Shaft lock is illustrated in Figure A; threaded standoffs in Figure B and C; chassis fastens in Figure E; captive panel screw in Figure D, shaft coupling in Figure E. In the table heading below, "T" indicates either the type of thread or the recommended board thickness. "X" In the table head indicates the hardware shank length except "maximum shaft diameter and foverall length. All are brass with cadmium plating, except Type 1510. Type 3200-6 and Series 3316 are brass with nickel plating, All are specially designed for high reliability performance and low cost. These low prices let you buy in quantity and save. Average shipping weight per pkg. of 10, 6 oz. Pkg. of 10.

Stock	Mfr's Fig.		X	PRICE	PER PKG	OF 10
No.	Type	ln.	In.	1-9	10-49	50-Up
971-0451 971-0471 971-0472 971-0476 971-0477	1510 A B1564-% B B1564-% B B1575-% C B1575-% C	%-32 6-32 6-32 6-32 6-32	.250 .625† .750† .500†	1.50	3.50 1.00 1.20 .90 1.30	2.92 .83 1.00 .75 1.08
971-0517 971-0521 971-0522	3200-6 3316A 3316B E	6-32 .250° .125°	.800† .750† .750†	8.38	2.06 6.70 6.70	1.72 5.58 5.58

FIBER SPACERS



Round fiber bushings for screw sizes indicated in table. Meet MIL-F-1148A, Grade CH specifications. Ideal for use in raising sub-panels, chassis, capacitors, transformers, etc. in electronic assemblies. Have 1/4" outside diameter. In packages of 10. Av. shpp. wt. 2 oz.

Stock	Mfr's	Screw	Length	PRICE PER PKG./10			
No:	Type	Size	Inches	1-9	10-24	25-Up	
920-8680 520-8683 920-2335 920-8686 920-2336	8880 8883 2335 8886 2336	4 4 4 4	1/8 3/16 1/4 5/16 3/8	.73 .80 .87 .96	.59 .64 .69 .77	.49 .53 .58 .64	
920-2337 920-2338 920-2339 920-8681 920-2130	2337 2338 2339 8881 2130	4 4 6 6	1/2 3/4 1 1/8 1/4	1.21 1.60 1.95 .73 .87	.96 1.28 1.56 .59	.80 1.06 1.30 .49	
920-8687 920-2131 920-2132 920-8696 920-2133	8887 2131 2132 8896 2133	6666	5/16 3/2 1/2 5/8 3/4	.96 1.04 1.21 1.37 1.60	.77 .83 .96 1.09 1.28	.64 .70 .80 .91 1.06	
920-2134 920-2140 920-2142 920-2143 920-2144	2134 2140 2142 2143 2144	6 8 8 8	1 1/4 1/2 3/4 1	1.95 .87 1.21 1.60 1.95	1.56 .69 .96 1.28 1.56	1.30 .58 .80 1.06 1.30	

1/4

ALUMINUM SPACERS

1/4" O.D. tubular spacers with precision machined ends, lengths accurate to ±.005". Aluminum with Iridite finish (meets MIL-C-5541 specifications). Ideal for raising subpanels, chassis, etc. Inside diameter for #4 screws is .113"; for #6 screws, .140". Sold in packages of 10 only. Av. shpg. wt. 6 oz.

Stock	Mfr's	Screw	Size Inches	PRICE PER PKG./10			
No.	Туре	Size		1-9	10-24	25-Up	
920-8281 920-8283 920-8301 920-8303 920-8305 920-8307	8481 8483 8501 8503 8505 8507	6 6 6	% % % %	.94 1.21 .94 1.21 1.48 1.75	.75 .96 .75 .96 1.18 1.40	.62 .80 .62 .80 .98	

ALUMINUM POSTS



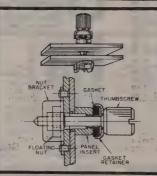
Round .250" O.D. metallic rode tapped through, or at each end. Support and separate components or structural members without need for long screws or machine nuts. Aluminum with iridite finish. Length and O.D. within ±.005" tolerance. "Minimum full-thread depth. Sold in packages of 10 only. AV. shpg. wt. 3 oz.

Stock	Mfr's	Thd.	Length	°d	PRICE	PER PKE	PER PKG. OF 10		
No.	Type	28 7	Inches		1-9	10-24	25-Up		
920-8123	8323	4-40	1/2	Thru	1.34	1.07	.89		
920-8127	8327	4-40	1	1/4	2.02	1.61	1.34		
920-8129	8329	4-40	11/2	1/4	2.56	2.04	1.70		
920-8143	8343	6-32	1/2	Thru	1.34	1.07	.89		
920-8145	8345	6-32	3/4	Thru	1.61	1.29	1.07		
920-8147	8347	6-32	1	3/8	2.02	1.61	1.34		
920-8149	8349	6-32	11/2	3/8	2.56	2.04	1.70		
920-8151	8351	6-32	2	3/8	3.10	2.48	2.06		
920-8152	8352	6-32	21/2	3/8	3.37	2.69	2.24		
920-8153	8353	6-32	3 .	3/8	3.64	2.91	2.42		
920-8155	8355	6-32	4	3/8	4.99	3.99	3.32		

BRASS AND NYLON THREADED RODS

Threaded rods for a variety of applications in electronic and electrical equipment. Weather-proofed; can be used in outdoor equipment. Supplied in one-foot lengths. Av. shpg. wt. 9 oz.

Stock	Mfr's	Desc.	Thomas	EACH		
No.	Туре	Desc.	Thread	1-9	10-Up	
920-1400	1400-1	Brass	6-32	.81	. 65	
920-1401	1401-1	Brass	8-32	.81	.65	
920-1402	1402-1	Brass	10-32	.81	.65	
920-1403	1403-1	Brass	1/4-20	.88	.70	
920-1432	1420-1	Nylon	6-32	1.49	1.19	
920-1434	1421-1	Nylon	8-32	1.62	1.30	
920-1436	1422-1	Nylon	10-32	2.02	1.62	
920-1437	1423-1	Nylon	1/4-20	2.43	1.94	



CAPTIVE HARDWARE

Stainless steel corrosion-free fastening hardware meets MIL-E-16400 (Ships) specifications, and will meet the requirements of MIL-E-5400 and MIL-P-11268 (Sig C) when painted or dulled in accordance with these specifications. The complete captive assembly consists of a slotted head thumb screw, an insert bushing for securing the thumb screw to the panel, a captive floating nut assembly which is fastened to the chassis member of rack, and a gasket retainer and rubber gasket for use where a dustproof, splash-proof seat is required. Av. shpg. wt. 2 oz.

Stock Mfr's No. Type	Mir		Screw	EACH			
	Description	Size	1- 99	100- 499	500- 999	1000- Up	
904-0011 904-0611 904-0576	CS 101 PIN-102 NB 100	% Thumbscrew .119156 Pl. Ins. Nut Bracket	8-32 NC-2 8-32 NC-2 8-32 NC-2	.95 .32 .14	.76 .26 .11	.63 .21 .09	.54 .18 .08



SPRING CLIPS

Offer positive, reliable contact. Easy to connect and disconnect. *Made of bronze; †These clips are brass, nickel-plated: All others solid brass, Wt. 1 oz.

Stock	Mfr's				Max.	Mtg.	EACH		
No.	Туре	Fig.	Length	Width	Wire	Hole	1- 99	100- 999	1000- Up
795-0301 795-0302 795-0309 920-0586	2 3 10 533†	F F F	1" 1½s" 34" 34"	3/8" 3/8" 5/16" 5/16"	#10 #10 #14 #14	#8 #8 #6 #6	.07 .07 .07 .05	.06 .06 .04	.045 .045 .03
920-0597 795-0304 795-0314 920-0588 920-0589	539† 5 15* 535† 536†	F G G H H	1½" 1½" 1½" 1½" 2½"	7/32" 3/8" 7/32" 5/16" 3/8"	#16 #10 #16 #14 #10	#4 #8 #4 #6 #8	.05 .07 .05 .19 .22	.04 .06 .04 .15	.03 .045 .03 .13

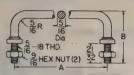


SNAPS AND STUDS

Used to make or break temporary electrical connections in an instant. Ideal for fast testing of circuits. Equally sultable for permanent wire connections when you're in a hurry. Carefully designed for many applications in industrial and commercial uses. Snap connectors (K) fit threaded stude (J), listed below. May be cascaded together for multiple connections. Snaps have solder lug. Stud has threaded screw shaft with nut. Can be used for either panel or chassis mounting. Shipping weight per 100, 12 oz. Sold in packages of 100.

Stock Fig.		Description	Size (In.)	PRICE PKG. OF 100			
140.	Description	Size (iii.)	1-9	10-24	25-Up		
873-0810 873-0812	K	Snaps Threaded Stud	1/16 Dia.x 1/2 Lgth. 1/2 Dia.x 6 3/3 2 Lgth.	13.00 11.97	10.83 9.58	9.28 7.98	

BRASS PANEL HANDLES

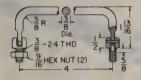


- Sturdy Handles Stand Up to Hard Use
- · Use for Instrument Panels, Rack Panels, Portable Equipment, Etc.

Brass panel handles meet federal specifications QQ-B-626, Composition 22, ½ hard. Polished nickel plate finish meets federal specifications QQ-N-290, Class I, Type VI. With male threaded stud. Supplied complete with matching ferrules, and nickel plated hex nuts. Individually packaged. Can be used for a wide variety of industrial and commercial uses. Av. shpg. wt. 6 oz. each handle.

Stock	Mfr's	Diam.	EACH		
No.	Туре	Inches	1-9	10-Up	
920-1711 920-2053 920-1714	1611 2053 1614	4x2% 4%x2% 6x21%	2.77 2.86 2.97	2.21 2.29 2.38	

FOLDING BRASS PANEL HANDLE

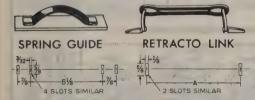


With spring-loaded detents which snap into upright of left-or-right folded position. Supplied with brass, nickel plated hex nuts. Mount in %" panel holes. Individually packaged. Polished nickel plate finish meets Fed. Specs. QQ-N-290. Class I, Type VI. Av. wt. 6 oz.

Stock	Mfr's	Finish	EA	CH
No.	Type		1-9	10-Up
920-1762	1662	Nickel Plated	8.25	6.60

LEATHER EQUIPMENT HANDLES

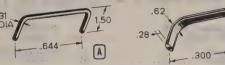
- Black Genuine Leather
- · Handles Lie Flat When Not In Use, Move Up When Carrying



Black leather with matching stitching. Spring Glide contoured handle moves up for carrying, lies flat when not in use. Will not rattle under extreme vibration conditions. Chrome plated caps. 120 lbs. maximum load. Retracto-Link handle attaches with rivets or screws, drops down when not in use. Hdwe.: nickel plated steel. 60 lbs. max. load. Av. wt. 3 oz.

Stock	Mfr's	Description	Lath.		EACH		
No.	Type		in.	1-9	10-49	50-Up	
920-2089 920-2093 920-2094 920-2095	2089 2093 2094 2095	Spring Glide Retracto-Link Retracto-Link Retracto-Link	6 4½ 5½ 6¾	4.79 4.39 4.39 4.39	3.83 3.51 3.51 3.51	3.20 2.93 2.93 2.93	

NICKEL-PLATED BRASS HANDLES







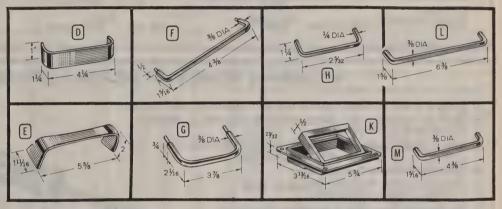
- Rugged Construction Withstands Frequent and Hard Usage
- Manufactured to Exacting Specifications

Sturdy handles for instrument panels, rack, panels, portable equipment, etc. Each handle is made of brass and is heavily nickel-plated. Rugged construction makes them stand up to Rugged construction makes them stand up to even the most frequent and hard usage. Types 1015-12, 1017-12, 1033-12 and 1034-12 are oval handles that have 10-32 threaded mounting holes. Type 900-12 is a nickel-plated, brass mounting ferrule that fits Types 1005-12, 1010-12, 1013-12, 1015-12 and 1017-12 handles. For hobbyist, builders, professional. 6 oz.

Stock	Mfr's	Ein	Mtg. Ctrs. In.	Hand Clear-	EACH			
No.	Туре			ance In.	1- 9	10- 24	25- 99	100- Up
971-0161	1005-12	AAAA	6.44	1¾	2.55	2.04	1.70	1.46
971-0170	1010-12		4.25	1½	2.08	1.66	1.38	1.19
971-0173	1012-12		4.00	1½	2.05	1.64	1.37	1.17
971-0176	1013-12		4.56	1½	2.13	1.70	1.42	1.21
971-0179	1015-12		3	1½	2.00	1.60	1.33	1.14
971-0185	1017-12		2	1½	2.08	1.66	1.38	1.19
971-0218	1033-12		3	1½	3.48	2.78	2.32	1.99
971-0221	1034-12		4.56	1¾2	3.68	2.94	2.45	2.10

				PKG. OF 2			
Stock No.	Mfr's Type	Fig.	Description	1-9	10- 24	25- Up	
971-0139	900-12	C	1.50" Brass Ferrule	.33	.26	.22	

UTILITY HANDLES



An extensive assortment of the most popular utility handles. Made to the most rigid specifications and highest production standards. Fabricated of brass, die cast aluminum, chrome plated steel or chrome plated brass. They have virtually unlimited applications in the electronic and electrical industry. Specifications and sizes for each handle type are supplied in the tables and copy below. All handles come complete with mounting hardware and necessary accessories. Average shipping weight: 3 oz., unless otherwise noted.

TYPE H-9100 WITH 1-IN. HAND CLEARANCE

 \Box Chrome-plated solid brass. H-9100, H9101: $1x\frac{1}{4}$ "; H-9102, H-9103: $\frac{1}{2}x\frac{1}{4}$ ". Incl. two 6-32 by $\frac{1}{2}$ " screws.

		Mtg.	PER PAIR				
Stock	Mfr's	Ctrs.	1-	50-	100-	150-	
No.	Type		49	99	149	Up	
736-4300	H-9100	4 6	13.75	11.65	7.30	6.85	
736-4302	H-9102		10.75	8.60	5.70	5.35	
736-4303	H-9103		12.50	10.00	6.70	6.35	

DIE CAST ALUMINUM TYPE H-9151

E Silver anodized. Hand clearance: 1%" for H-9151; 1%" for H-9152. Four 10-32x½" screws.

736-4351	H-9151	5 ³ / ₃₂	14.87	11.90	8.70	8.20
736-4352	H-9152	3 ⁷ / ₈	13.25	10.60	7.10	6.65

MODERN LOOK HANDLES TYPE H-9140

F Die cast aluminum with silver anodized finish. ¾" hand clearance. Incl. two 10-32x½" screws. Av. shpg. wt. 6 oz. Per pair.

736-4340	H-9140	31/2	7.00	5.60	3.70	3.50

TYPES H-9115 AND H-9116

(3) %" steel rod with chrome plate finish. 1%" hand clearance. Use where a thin, durable handle is necessary. Includes two 1/4-28 nuts.

oodary						
736-4315	H-9115	4 6	7.88	6.30	4.20	3.95
736-4316	H-9116		8.75	7.00	4.70	4.40

TYPE H-9166 BRASS HANDLE

H 1/4" diameter brass handle with chrome-plated finish. 1-inch hand clearance. Hardware includes two 6-32x½" screws.

		Mtg.	PER PAIR				
Stock No.	Mfr's Type	Ctrs.	1- 49	50- 99	100- 149	150- Up	
736-4366 736-4368	H-9166 H-9168	1 ²⁸ / ₃₂	4.00 4.25	3.20 3.40	2.10 2.30	2.00	

RECESSED HANDLE TYPE H-9149

K Recessed anodized aluminum handle fits flush easier. Handle is 21/4 "x41/4". 15/4" hand clearance. Standard on Bud Classic II cabinets. Incl.: (4) 8-32x%/4" flat head screws, nuts. 11/4 lbs. Per pr.

736-4349 | H-9149 | 4 | 15.48 | 13.85 | 12.35 | 11.55

STEEL HANDLE TYPE H-9110B

736-4310	H-9110B	6	3.25	2.60	1.95	1.70

STEEL HANDLES TYPE H-9111

 $\boxed{\mathbb{M}}$ %" dia. steel chrome-plated, except H-9114, ½" dia. All, except H-9114, which has two ¼-28x½" screws, have two 10-32x½" screws. Hand clearance of 1", except H-9114, 1½".

736-4311	H-9111	4	5.00	4.00	2.70	2.50
736-4312	H-9112	6	5.63	4.50	3.00	2.80
736-4313	H-9113	8	6.38	5.10	3.40	3.20
736-4314	H-9114	8	10.38	8.30	5.50	5.20

Precision Industrial Soldering Equipment

MINI-INDEX OF TOOLS IN THIS CATALOG

Alignment Tools G.C.	.307	Emergency Lights AM. Dryer	31
Bench Vises Willian	.311	Engraver Allied	31
Blades Xacto		Flux and Remover Kester	30
Cabinets, Utility Allied	.314	Heat Sinks G.C., Allied	30
Akro Davies		Hex Key Set	31
Edsal	.316	Knives Xacto, Allied	.310, 31
Cabling Tools O.K. Tool Chassis Drivers and Punches	.161	Labelmaker Allied	
Chassis Drivers and Punches Greenlee	.311	Lamps, Adjustable	
Crimping Tools Allied	.161-	Roxter	
Desoldering Equipment Ungar	.305	Lathe and Accessories Unimat	31
Dies Hansen (Ace)		Magnifiers, Illuminated	
Drills and Bits Consolidated, Dremel, Rockwell		Nut Drivers Allied, Vaco	

Outlet Boxes Allied	312
PC Board Holder Hunter	63
Pliers Allied, Utica	309, 310
Pocket Knife Allied	161
Power Tools A VOTEBURE	£.,,313,
Riveter ver to a asked rai	309
	2.1591313
Scissors, Electrician's	310
Screwdrivers Allied, Vaco	
Scribers Moody	3
Shelving.	
Solder Allied, Kester	
Aillou, Modici . ,	, , , , , , , , , , , , , , , , , , , ,

Soldering Equipment Antex	302
Allied	303-307
American Beauty	304
Ungar305, 3	06, 307
Wassco	303
Weller	303
Tool Kits Moody, Vaco309, 3	
Tools, Hand Allied, Vaco, Xcelite3	09, 310
Torches Microflame	
Tweezers	210
Clauss	310
Clauss Ultrasonic Cleaners Electromation	
Ultrasonic Cleaners	318
Ultrasonic Cleaners Electromation	318

MODEL C-15 WATTS MODEL G-18 WATTS MODEL X25-25 WATTS

1-24 25-Up

SOLDERING IRONS FOR MICROELECTRONIC CIRCUITS

- Long-lasting Elements—Designed for Production Line Service
- Heat to Full Operating Temperature in Seconds . . . Hold Constant Tip Temperature
- Low Current Leakage ... for Models C and G less than 10 μ A ... for Model X25 less than 20 μ A
- Safe for Delicate Components
- Maximum Heat Transfer Efficiency with Slide-on Replaceable Tips
- All Models Meet OSHA Standards for Safety

Soldering irons ruggedly built for long-lasting, heavy-duty service and production line use. Fast heat-up and recovery time, efficient heat transfer assure steady tip temperature and superior performance in all microelectronic soldering applications. Low current leakage and near-infinite insulation of heating elements from tip eliminate risk of damage to transistors, integrated circuits and other delicate components, and assure safety of the operator. Interchangeable tips in a variety of sizes and shapes cover a full range of soldering requirements. No set screws to freeze and break.

Three models, three power ranges: 15 watts, 18 watts, 25 watts; all feature comfortable handles of highest quality, char-proof, unfilled Melamine plastic. Cords are ultraflexible for easy handling. For 110-130 V, 50-60 Hz AC.

SOLDERING IRONS

*Temperature depends on voltage. All models have 3-prong plug.

•	Stock	Mfr's			Power	°F Temp.		
	No.		In.	Oz.	Watts	Range	1-9	10-Up
	728-0220 728-0320	G-3	6½ 6½	3	15 18	650-750 650-700*	13.68 15.36	
	728-0520	X25-3	83/4	44	.25	650-700	14.88	

*Avai

TIPS FOR MODELS C AND G

*Available in gold or bare copper only.

	Size	Stock			Stock			EACH	
	In.	No.	Fig.	Type	No.	Fig.	Type	1-24	25-Up
/	3/64	728-1602	A	Spade 6-IS	728-1600	В	Chisel 6-IC	2.19	1.29
1	1/16	728-4605	A	Spade 46-IS	728-4600	В	Chisel 46-IC	2.19	1.34
1	3/32	728-1202	A	Spade 2-IS	728-1200	В	Chisel 2-1C	2.19	1.29
/	1/8	728-8605	A.	Spade 86-IS	728-8600	В	Chisel 86-IC	2.19	1.34
	⁶ / ₃₂ ³ / ₁₆	728-1302	A	Spade 3-IS	728-1300	В	Chisel 3-IC	2.19	1.29
	3/16		1		728-1400	В	Chisel 4-IC	2.19	1.29
	.012	728-1801	C	Needle 8X*				1.64	1.24

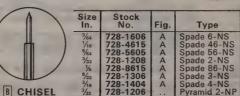
A SPADE

NICKEL-PLATED TIPS

728-1604 728-4610 728-5600 728-1204 728-8610 728-1304 Fig.

Type

Chisel 6-NC Chisel 46-NC Chisel 56-NC



REPLACEMENT ELEMENTS

700 0000	
728-0200.	For Model CEach 6.44
728-0300.	For Model GEach 6.60
729 0500	For Madel VOE 2
728-0300.	For Model X25-3 Each 7.36

SOLDERING IRON STAND



Stock	Mfr¹s	Size	Size In. Fig.	Tip Temp.	EACH	
No.	Туре	In.			1-24	25-Up
728-1100	50	3/32	A	608°F	2.15	1.25
728-1151	52	3/16	A		2.15	1,25

TIPS FOR MODEL X25

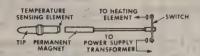
ALLIED ELECTRONICS HAS COMPLETE STOCKS OF SOLDERING EQUIPMENT
FOR PRODUCTION LINE USE. FOR FASTEST DELIVERY OF YOUR NEEDS,
CONTACT ALLIED.

9



SOLDERING IRONS WITH

"TEMPERATURE SENSING" TIPS



TEMPERATURE CONTROLLED IRONS

DUAL-HEAT SOLDERING GUNS MODEL D-550PK. Outfit includes Weller D-550 heavy duty 240/325-watt soldering gun with copper soldering tip, one smoothing tip and one cutting tip; tip changing wrench, coil of solder, instructions, unbreakable plastic case. Prefocused twin spotlights. For 115 VAC. U.L. Listed. 5 lbs. 984-0551, 1-2.. Ea. 16.95 3-Up.. Ea. 13.49 D550. Soldering Gun Alone. Wt. 3½ lbs. 984-0550. 1-2.. Ea. 13.90 3-Up.. Ea. 11.08

DUAL-HEAT SOLDERING GUNS

TYPE 64-2190. "Expert" dual-heat soldering gun offers fingertip selection of 140 or 100 watts. Provides high or low heat as the job requires. With copper soldering tip. Balanced weight for easy handling. 910-5935. Shpg. wt. 1 lb......Ea. 9.49

ALLIED REPLACEMENT TIPS FOR ABOVE

Stk. No.	Type	For Model	Pk/2
910-5902	64-237	8200, 64-2190	.79
910-5901	64-234	D550	.79

CHISEL-POINT AND ACCESSORY TIPS Chisel-point tips (7300 thru 8125) have 2 per pkg. Accessory tips (*cutting; †smoothing) have 1 per pkg. Av. shpg. wt. 3 oz.

Stock No.	Туре	Use With Models	PKG.
984-7300	7300	S-107, D-207	1.13
984-8125		8100B, 8200	1.05
984-6110	6110*	WS-100, WD-135,	
		S-400, D-440	1.05
984-6140	6140†	D-550, 8250A	1.05

TEMPMATIC® SOLDERING GUN

TEMPMATIC® SOLDERING GUN
MODEL GT. Combines the benefits of
temperature-controlled operation with the
ease, speed and convenience of a pistolshaped, trigger-operated gun with smallframe pencil iron. Quick heating, patented
powerhead gives control of maximum temperature for damage-free soldering of delicate IC's and sensitive FET's. Requires
#7A long-life 700°F, %// chisel point
powerhead or #6B, 800°F, %// conical
powerhead (below). Powerhead ejection
button. 110-120 V, 6B HZ AC.
984-3700. GT. Solder Gun Body.Ea. 5.65
984-0707. 7A. 700°F Powerhead.Ea. 12.90
984-0706. 6B. 600°F Powerhead.Ea. 12.90

REPLACEMENT PARTS

For maintaining Weller soldering guns. *Tip nut; †switch. Av. shpg. wt. 3 oz.

			EACH				
984-7325	7325*	D-440, S-440, 8100, 8200, 8100B					
		8200, 8100B	.25				
984-7417	7417*	D-550, S-500, 8250A	.25				
984-7324	7324†	All Dual-heat type					
		Soldering Guns	1.50				

PREMIUM-PLATED REPLACEMENT TIPS FOR ABOVE IRONS Series CT5 is for Model W-60 iron; Series CT6 for W-100 iron; Series CT2 for Model W-200 iron.

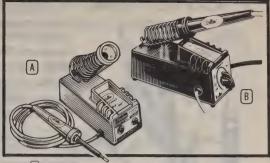
Stock	Mfr's	Description	Temp.	EACH			
No.	Туре	Description	remp.	1-11	12-24	25-Up	
984-1001 984-1002 984-1003 984-1004 984-1005	CT5A6 CT5A7 CT5A8 CT5B6 CT5B7	N ₁₆ " Screwdriver V ₁₆ " Screwdriver V ₁₆ " Screwdriver V ₃₂ " Screwdriver V ₃₂ " Screwdriver	600°F 700°F 800°F 600°F 700°F	1.75 1.75 1.75 1.75 1.75	1.30 1.30 1.30 1.30 1.30	.97 .97 .97 .97	
984-1006 984-1007 984-1008 984-1009	CT5B8 CT5C6 CT5C7 CT5C8	32" Screwdriver 18" Screwdriver 18" Screwdriver 18" Screwdriver	800°F 600°F 700°F 800°F	1.75 1.75 1.75 1.75	1.30 1.30 1.30 1.30	.97 .97 .97	
984-1010 984-1011 984-1012 984-1013 984-1014	CT5D6 CT5D7 CT5D8 CT6C7 CT6C8	3/6" Screwdriver 3/6" Screwdriver 3/6" Screwdriver 1/8" Screwdriver 1/8" Screwdriver	600°F 700°F 800°F 700°F 800°F	1.75 1.75 1.75 2.75 2.75	1.30 1.30 1.30 2.20 2.20	.97 .97 .97 1.76 1.76	
984-1015 984-1016 984-1017 984-1018 984-1019	CT6D7 CT6D8 CT6E7 CT2E7 CT2F7	%6" Screwdriver %6" Screwdriver ¼" Screwdriver ¼" Screwdriver %" Screwdriver	700°F 800°F 700°F 700°F	2.75 2.75 2.75 4.13 4.13	2.20 2.20 2.20 3.30 3.30	1.76 1.76 1.76 2.64 2.64	
984-1020 984-1021 984-1022	CT2G7 CT2G8 CT2H8	7/16" Chisel 1/16" Chisel 1/2" Chisel	700°F 800°F 800°F	4.13 4.13 4.13	3.30 3.30 3.30	2.64 2.64 2.64	

REPLACEMENT HEATING ELEMENTS

Stock No.	Туре	Description	Wt.	EACH
984-1060 984-1200	HE-W60 HE-W200	For W-60 iron For W-200 iron	2 oz. 6 oz.	10.40 11.58
984-0960	HE-60	For W-TCP pencil	2 oz.	5.12

"MARKSMAN" SOLDERING IRON





A 60-WATT CONTROLLED-TEMPERATURE PENCIL

MODEL W-TCP 60-WATT UNIT. Features accurate, automatic temperature control plus low-voltage power unit (24-volts). 7½" pencil-size length; weighs only 1¾ oz. Power unit, 2x3x6". With ½" 700° tip; tip-cleaning sponge attached to power unit. Other tips below. Extremely small and light weight. Packed with plenty of reserve power. High efficiency and recovery.
W-TCP-L. Same as W-TCP but with on/off switch and pilot light. For 110-120 volts, 50-60 Hz. AC. Shpg. wt. 4 lbs.

Stock	Mfr's	EACH				
No. Type	Type	1-5	6-11	12-Up		
984-2505 984-2507	W-TCP W-TCPL	29.75 33.25	25.74 29.95	21.75 26.60		

B 20-WATT CONTROLLED-TEMPERATURE PENCIL

MODEL W-TCP2. Similar to W-TCP above, but has silicon-controlled rectifier and thermistor control circuit. Adjusts temperature range continuously from 200°F to 450°F. For use only with solder that has melting point lower than 300°F. For 110-130 volts, 50-60 Hz. AC. Shpg. wt. 3 lbs.

984-2510. 1-11. Each 72.30 12-23. Each 65.35 24-Up. Each 58.05

PREMIUM-PLATED REPLACEMENT TIPS FOR W-TCP SERIES

Stock	Mfr's	Description	Temp.	EACH			
No.	Type	Description	remp.	1-11	12-24	25-Up	
984-1506		1/16" Screwdriver	600°F	1.75	1.30	.97	
984-1906		1/8" Screwdriver	600°F	1.75	1.30	.97	
984-2106		1/32" Screwdriver	600°F	1.75		.97	
984-2306 984-1606		%4" Long Screwdriver 332" Spade	600°F	1.75	1.30	.97	
984-1706		1/8" Spade	600°F	1.75	1.30	.97	
984-1507	PTA7	1/16" Screwdriver	700°F	1.75	1.30	.97	
984-1600		3/32" Screwdriver	700°F	1.75	1.30	.97	
984-1907	PTC7	1/8" Screwdriver	700°F	1.75	1.30	.97	
984-2010	PTD7	3/16" Screwdriver	700°F	1.75	1.30	.97	
984-2107	PTH7	1/32" Screwdriver	700°F	1.75	1.30	.97	
984-2307	PTL7	%4" Long Screwdriver	700°F	1.75	1.30	.97	
984-2350 984-1500	PTM7 PTAA7	1/8" Long Screwdriver	700°F	1.75	1.30	.97	
984-1500	PTBB7	1/16" Spade	700°F	1.75		.97	
984-1707	PTCC7	1/8" Spade	700°F	1.75	1.30	.97	
984-2000	PTDD7	3/16" Spade	700°F	1.75		.97	
984-2370	PTP7	1/32" Conical	700°F	1.75	1.30	.97	
984-2030	PTF7	1/32" Conical Flat	700°F	1.75	1.30	.97	
984-1508		1/16" Screwdriver	800°F	1.75		.97	
984-1908	PTC8	1/8" Screwdriver	800°F	1.75	1.30	.97	
984-2108		1/32" Screwdriver	800°F	1.75	1.30	.97	
984-2308		%4" Long Screwdriver	800°F	1.75		.97	
984-1608		3/32" Spade	800°F	1.75		.97	
984-1708	PTCC8	1/8" Spade	800°F	1.75	1.30	.97	

SOLDERING IRON STAND

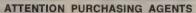
984-1306. 1-5 Each 7.99 6-11. . . . Each 5.33 12-Up . . . Each 4.50



CONTROLLED-TEMPERATURE SOLDERING DEVICES

MODEL 105-A3 POWER UNIT Provides Accurate, Variable Control for Wire-Stripping and Soldering-Isolates Tool from Line Voltage

993-2303.



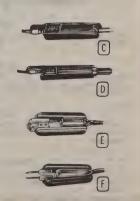
Make Allied your one-stop headquarters for all your tool needs. Allied has complete stocks of the latest in soldering equipment.



105131 WIRE STRIPPER. 15-100 W. For 24gauge wire or finer. 6½" long. Heatproof cord. 993-2325. Shpg. wt. ½ lb. Each 30.15

105133 MICRO-TWEEZER. Solders wires 22-gauge or finer. 15-100 W. 61/2" long. .040" electrode. 993-2328. Shpg. wt. ½ lb.Each 20.29

F 10544 TWEEZER-TYPE WIRESTRIPPER. Wires to 18-gauge. 15-100 W. 4½" long. Adj. stop. 993-2319. Shpg. wt. 1 lbs. Each 23.12 993-2322. 10545 Element. For 10544 Wirestripper above. Shpg. wt. 1 oz..........Pkg. of 2 for 1.15 993-2310. 10519 Footswitch. For 105-A3 Power Unit, left. Shpg. wt. 12 oz. Each 16.50



Soldering Guns, Irons and Accessories

ALLIED "ISO-TIP" MODEL 7570 CORDLESS SOLDERING IRON



Automatically Recharges When Placed in Separate Stand

- A New Concept in Complete Portability-Offers Complete Working Freedom
- Amazingly Short Heating Time—5 Seconds
- . Solders up to 100 Joints per Charge
- Recharges Automatically in Stand
- Ideal for any Application, Anywhere
- Equivalent to 50 Watts

ARCHER 100/140 WATT "EXPERT" SOLDERING GUN

Exclusive at Allied! Versatile, low-priced soldering gun that is perfect for hobbyist or handyman. Fingertip selection of 140 or 100 watts provides high or low heat as the job requires. Copper tip, Balanced weight. 1 lb. 910-5935. Type 64-2190.......Each 9.49

Replacement Soldering Tips (also for Weller guns)

Type No. For Model 8200: D440 D550 910-5902 910-5901 64-237 64-234



SERVI-TUBE SOLDER DISPENSERS

A KWIK-DRAW

B POCKET-PAK

Handles as easily as a pen or pencil and comes with a pocket clip. Ideal for service or repair, handy size, keeps it always at hand. Dispenses a convenient length of wire. No unraveling. 60 tin/40 lead solder

wire: 707-5030. Shpg. wt. 1/4 lb......Each 1.88

ARCHER 4-PC. "SOLDER EASE" KIT

MODEL 64-2227. Special kit containing four tools for improved soldering. Aluminum heat sink protects transistors and diodes when soldering, gives a firm grip. Fine-point probe aids soldering on printed circuits. Stainless steel hardened probe, steel brush and scraper helps keep circuit clean as you solder. Also with heat sink. Shpg. wt ½ lb.

COOL-GRIP 30-WATT SOLDERING GUN

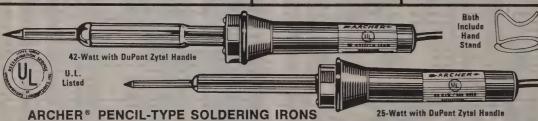
An excellent choice for general purpose soldering in home or shop. Heats evenly, reaches operating temperature in seconds. Lightweight and balanced. U.L. listed. 910-5424. 64-2068. % lb. 3.39 910-5960. 64-2073. Replacement tip. Wt. 2 oz....Ea. .59

40-WATT PENCIL SOLDERING IRON



Model SP40. Weighs only 2 oz. Stainless steel barrel, nickel plated copper tip, heat resistant handle. 81/4" long. 1/4" dia. tip. 120 VAC. U.L. listed

984-2440. Ea. 6.12 4-Up 6.12 984-2441. MT10 Extra Tip. Package of 2......3.24



MODEL 64-2070 25-WATT SOLDERING IRON. Extra-strength, easy to manipulate, trouble-free. All the features as iron at left (64-2071), but with \(\frac{\pi}{2} \) screw-in tip. Heats delicate work gently and evenly after 90 seconds, Ideal for printed circuit work. Extra tips sold below.

910-5957. Shpg. wt. \(\frac{\pi}{2} \) lb. Each 3.29

SOLDERING IRONS FOR INDUSTRY



Special iron-plated tips, available for all models greatly reduce pitting. Casing and body are of one-piece seamless steel. Rubberoid-coated "cool" handles. 6-ft, cords. U.L.

MODEL 3128-60 WATTS

MODEL 3138-100 WATTS

General-purpose %" dla. copper tip. Chrome-plated. Cooling baffle; stand. 12%" long. For 110-120 volts, AC-DC. Shpg. wt. 2¼ lbs. 709-0045. 1-5. Each 15.40

MODEL 3158-200 WATTS

MODEL 3178-300 WATTS

Designed to handle special production-line applications. Has %" copper tip. 14%" long. With stand. For 110-120 volts. AC-DC. Shpg. wt. 4 lbs. 709-0051. 1-5. Each 32.50 6-Up. Each 25.30 Each 25,30

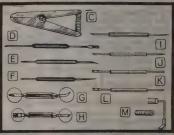
COPPER-NICKEL PLATED TIPS

*Diamond; †Chisel; ‡Screwdriver. 3 oz.

Stock No.	Mfr's Type	Shape	For Iron	EACH
709-0057	3728	*	3114,	
	y 4 1.8°		25,28	.75
709-0055	37285	15	3114,	-
. 5	C		25,28	.75
709-0058	3738	*	3138	1.15
709-0056	3728\$	‡ .	3138	1.15
709-0059	3758	*	3158	3.57

18: 4 FA	MAGON	INCIN	-CLAD HPS	
709-0021	67D	* .	3114,	
			25,28	3.25
709-0024	67S	1	3114,	3.25
709-0003	43D	119	3138	3.95
700-0018	56	+	3138	4.05

ALLIED **SOLDERING AIDS**



- 9077 HEAT SINK. Protects parts from heat. Made of aluminum—solder will not stick. Self-closing; free hands. 3 oz. 796-9077. 1-4... Ea. .63 5-Up... Ea. .43
- 9088 BRUSH. Wire brush and chrometipped holding end. 4 oz. 796-9088. 1-4. . Ea. 2.08 5-Up. . Ea. 1.38
- E 9076 ANGLE END-TOOL, 4 oz. 796-9076. 1-4. Ea. 1.58 5-Up. Ea. 1.05
- F 9075 STRAIGHT END-TOOL. Double ends ream, hold or pry. Chromed. 4 oz. 796-9075. 1-4. . Ea. 1.58 5-Up. . Ea. 1.05
- G 9093 SOLDERING PROBE. For printedcircuit work, 8". 3 c 796-9093. 1-4. . Ea. 2.08
- 5-Up. Ea. 1.38 H 9094 PC BOARD BRUSH AND SCRAPER. Stainless steel brush on one end, steel scraper on other. 8" overall length. 3 oz. 796-9094. 1-4. Ea. 2.08 __5-Up. Ea. 1.38
- Officer of the second of the s
- 9073 BRUSH AND FORKED TIP. For PC work. Forked tip for twisting or holding wires. Ends insulated. 3 oz. 796-9073. 1-4. Ea. 1.58 5-Up. Ea. 1.05 Brush for dusting away excess solder, scraper for joints. Ends insulated. 3 oz. 796-9074. 1-4. Ea. 1.58 5-Up. Ea. 1,05
- 9086 STRAIGHT REAMER AND FORKED
- TIP. Steel, chrome plated. For lug holes, forked tip holds wires. 3 oz. 796-9086. 1-4. Ea. 2.08 5-Up. Ea. 1.38
- 6798 SOLDERING AID. Connector for easy replacing of components on PC board. Copperweld core. 4 oz. 796-6798. 1-4. . Ea. 2.45 5-Up. Ea. 1.76

ATTENTION BUYERS

Write, wire or phone your near-est Allied Electronics facility for larger quantity pricing.

"CONDENSED LINE" 3-WIRE SOLDERING IRON



- Accepts Over 40 Nibs, Tips and Tiplets
 Also Accepts Princess De-soldering Tips
 Heat Cartridge in Three Wattages
- Safe 3-Wire Operation
 Meets OSHA Standard
 U.L. Listed

Versatile three-wire soldering iron has all the advantages of the Standard Line as a production soldering tool, but with approved grounding. Eliminates static induced currents. Ideal for general-purpose soldering and for voltage-sensitive components. Meets military, NASA and other government soldering standards. Includes color-coded handle and heat cartridge (Cartridge can be changed in less than 30 seconds). Accepts any Standard or Princess Line tip, tiplet or nib listed. Av. shpg. wt.: 1 lb.

Stock	Mfr's		Temper-				
No.	Type	Description	ature	Watts	1-9	10-49	50-Up
972-0127 972-0135 972-0145	127 135 145	Handle beige Handle green Handle blue	650-750°F 750-850°F 900-1000°F	27 35 45	11.25 11.25 11.25	9.00 9.00 9.00	7.50 7.50 7.50

Tips not included.



"IMPERIAL" HEAVY-DUTY LINE



40-WATT "IMPERIAL" SOLDERING OUTFIT

Type 6010. Features six of the most popuplar "Imperial" components. Ideal for printed circuits and solid-state devices. Kit includes: #6100 Perma-Cool Handle; #6200 stainless steel, double-insulated 40-watt heat cartridge; #6102, two-wire cord; and three multi-purpose "Mini-Tip" thread-on soldering tips. Delivers a tip temperature of 750° to 950° F. For 110-120 volts, AC or DC. Shpg. wt. 8 oz. 972-6010. 1-9

					Jp		Each 11.42
							n, with die-
cast	aluminum	heat sin	k. 4.7"	long; 0.8'	diameter	at grip.	Turquoise

Plug-in Power Cords. Vinyl covered 2- or 3-wire power cords for Imperial handles. Molded-on female connector, positive slip-on action, with snaplock. Polyvinylchioride insulation. U.L. Listed. For 115 volts, AC or DC. Turquoise color. Shpg. wt. 3 oz.

972-6111. Type 6102 Two-wire Cord. 10-48 Each 3.84	
972-6121. Type 6103 Three-wire Cord. 10-49Each 5.64	1-9 Each 7.05 50-Up. Each 4.70

"LONG LIFE" HEAT CARTRIDGES

Stainless steel "long life" Stainless steel "long life" heat cartridges for use with "Mini-Tips" below. Type 6203, 850-1150°F; 6200, 750-950°F; 6201, 650-850°F; 6202, 600-800°F, U.L. Listed. Wt. 2 oz.

			EACH			
Stock No.	Mfr's Type	Watts	1-9	10- 49	50- Up	
972-6203 972-6200 972-6201 972-6202	6200 6201	50 45 35 25	8.85	8.36 7.08 7.08 7.08	5.90 5.90	

INTERCHANGEABLE "MINI" THREAD-ON TIPS

For Imperial Line only, High thermal conductivity, *Indicates 24-kt. gold-plated, iron-clad tip; †tellurium copper. Av. wt. 3 oz.

Stock	Mfr's		7		EACH	
No.	Type	Description	Size	1-9	10-49	50-Up
972-6304	6304	*Micro-chisel	3/84X 1/2"	2.30	1.84	1.53
972-6305	6305	*Micro-spade	3/64X 1/2"	2.30	1.84	1.53
972-6312	6312	†Pencil	1/8×3/4"	1.03	.82	.68
972-6313	6313	*Pencil	1/8×3/4"	2.30	1.84	1.53
972-6316	6316	*Pencil, offset	1/8×3/4"	2.30	1.84	1.53
972-6318	6318	†Long taper chisel	1/8×3/4"	1.03	.82	.68
972-6319	6319	*Long taper chisel	1/8×3/4"	2.30	1.84	1.53
972-6324	6324	tLong taper pyramid	1/8×3/4"	1.03	.82	.68
972-6325	6325	*Long taper pyramid		2.30	1.84	1.53
972-6331	6331	*Screwdriver	1/8×3/4"	2.30	1.84	1.53
972-6333	6333	*Needle	1/8×3/4"	2.30	1.84	1.53
972-6336	6336	*Spade	1/8×3/4"	2.30	1.84	1.53
972-6482	6482	*Micro-spade	3/64×1 1/16"	2.30	1.84	1.53
972-6368	6368	tLong taper pyramid		1.25	1.00	.83

DE-SOLDERING EQUIPMENT

PRINCESS DE-SOLDERING EQUIPMENT

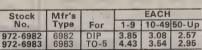
Type 6939. Easy-to-use, dependable de-soldering kit includes 18-watt heat capsule with three tips—types 6945, 6947 and 6948. U.L. Listed. 3-wire cord. 120 VAC. Shpg. wt. 12 oz.

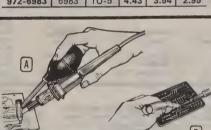
Each 26.20 . Each 15.93 972-6939, 1-9 50-Up..... 10-49..... Each 19.92

INTEGRATED CIRCUIT **EXTRACTORS**

Type 6982 Dual In-Line IC Extractor. Pushbut-ton extractor, for use with Type 6948 tip. 8

Type 6983 Princess TO-5 Extractor. Easy to use. 8 oz.





DE-SOLDERING ACCESSORIES

TYPE 7800 HOT-VAC DE-SOLDERING TOOL.
Simply squeeze the bulb to draw solder away
from the connection. Complete with handle, heating unit, 7806 tip. Shpg. wt. 10 oz.
972-7800. 1-9 Each 21.38
10-49 Each 16.58
50-Up Each 13.27

B TYPE 7805 DE-SOLDERING BULB. Includes
TFE tip. Shpg. wt. 4 oz.
972-7805. 1-9 Each 2.65
50-Up Each 2.12
50-Up Each 1.77

CHECK THE PRECEDING PAGE FOR "STANDARD LINE" AND "PRINCESS LINE" HANDLES, HEAT UNITS AND INTERCHANGEABLE TIPS

DE-SOLDERING TIPS

Use with all Princess heat capsules, htg. units 535, 1235, 4035. Add #100 adapter for htg. units 537, 1237, 4037 and 125, 135, 145 irons.

Type 6943. For 8, 10 or 12-lead IC's in "TO" configuration. Tip temperature approx. 700°F. at 18 watts. .600" dia.

Type 6944. For "TO" packages. Tip temperature approx. 710°F at 18 watts. .500" dia.

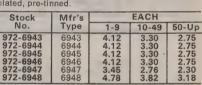
Type 6945. For transistor pads. Tip temperature approx. 720°F at 18 watts. .375" dia.

Type 6946. For TO-5 packages. Tip temperature approx. 780°F at 18 watts. .280" dia.

Type 6947. Slotted lead straight-

Type 6948. New slotted bar design removes solder from 16-pin dual in-line IC in one pass. Approx. 570°F at 18 watts. Ironclad, nickel-plated, pre-tinned.

972-6948





PRODUCTION AIDS

Type 6800 Iron Holder. For "Imperial" irons. Shpg. wt. 8 oz.
972-6800. 1-9 Each 4.08
10-49 Each 3.26 50-Up Each 2.72
Type 8000 Iron Holder. For "Standard" and "Princess" line, 8 oz.
972-8000. 1-9 Each 3.95
10-49 Each 3.16 50-Up Each 2.63
Type 6990 Iron Holder, Sponge.
972-6990. 4 ozEach 6.88
Type 6991 Sponge Refill. 1 oz.
972-6991 Each 1.05
Type 400 Kleen-Tip Sponge and Tray. Fastens to workbench. Wt. 3 oz.
972-0400. 1-9
10-49 Each 1.84 50-Up Each 1.53
Type 455 Replacement Sponge. 1 oz.

972-0455. 1-9 Each .93 10-Up Each .74 Type 7910 Hot Knife Attachment. Collet holder and three blades. Use with Standard Line heating unit #4037, 3-wire irons 127, 145. Wt. 4 oz.
972-7910 Each 2.58

SOLDERING **EQUIPMENT**

Modular Soldering Equipment



- HANDLE, HEATING UNITS AND SCREW-ON TIPS
- "Cool-Grip" Handle
 3 Different Heating Elements
- Thread-On Copper Alloy Tips A Complete, Low-Cost Workshop

231/2-27W

371/2-44W

471/2-561/2 W

Choose the soldering device that meets your needs. Archer Industrial-quality interchangeable solder tools change your iron as easily as you'd change a light bulb! Select the heating unit or accessories you need for the job you're doing—or buy them all for a complete low-cost solder workshop. "Cool-grip" polypropylene handle is lightweight and easy to use. The three different long-life heating units screw into it easily—no tools required. The thread-on copper alloy tips are of the highest quality and each is specially designed for a particular job (light, medium and heavy duty—sold in packages of three only) III isted

Stock No.	Mfr's Type	Description	Watts	EACH
910-5928 910-5929 910-5930 910-5933 910-5934	64-2080 64-2081 64-2082 64-2083 64-2084	Cool-grip Soldering Handle 600° F to 650° F Heating Unit 750° F to 800° F Heating Unit 850° F to 900° F Heating Unit Light, Medium, Heavy-Duty Tips	23½-27 37½-44 47½-56½	2.59 2.49 2.99 4.39 Pkg. 3/1.89

INTERCHANGEABLE HEATING UNITS

Stock	Mfr's		Temper-		EACH		
No.	Туре	Description	ature	Watts	1-9	10-49	50-Up
972-0537	537	For ¼" thread-on tips	600-650°F		3.48	2.78	2.32
972-1237	1237	For ¼" thread-on tips	700-750°F		4.48	3.58	2.98
972-4037	4037	For ¼" thread-on tips	800-850°F		6.50	5.20	4.33
972-0535	535	For %" thread-in tips	600-650°F		3.08	2.46	2.05
972-1235	1235	For %" thread-in tips	700-750°F		4.48	3.58	2.98
972-4035	4035	For %" thread-in tips	800-850°F		6.50	5.20	4.33
972-4045	4045	For 3/16" thread-in tips	800-850°F	50	6.50	5.20	4.33

HEATING UNITS WITH INTEGRAL TIPS



Stock	Mfr's		Temper-			EACH		
No.	Туре	Description	ature	W	Lgth.	1-9	10-49	50-Up
972-4033	4033	Long Taper Chisel, iron clad				6.50	5.20	4.33
972-4039		Short Taper Chisel, iron clad				6.50	5.20	4.33
972-1233	1233	Long Taper Chisel, copper	750-800°F	42	1.688″	4.48	3.58	2.98

"PRINCESS" MICRO LINE SOLDERING IRONS

Designed to meet the special needs of micro-electronic assembly. Precision tool design permits pinpoint hand control, comfort and accuracy, assuring high-yield soldering of delicate circuitry and components in the tightest spaces. Modular versatility with interchangeable handles, heat capsules and tips. Lightweight and perfectly balanced for fatigue-free operation, even over long periods.



- Specially Made for Micro-Electronic Assembly
- Interchangeable Handles, Heat Capsules and Tips

MODEL 6900 SOLDERING STATION

Each 16.58 50-Up Each 13.26

10-49

"PRINCESS" HANDLES

Stock	Mfr's		EACH			
No.	Type	Description	1-9	10-49	50-Up	
972-6902		Pastel nylon handle with plastic cool-grip, 2-wire cord and plug	7.25	5.80	4.83	
972-6903	6903	Pastel nylon handle with plastic cool-grip, 3-wire cord and plug	9.85	7.88	6.57	

STAINLESS STEEL HEAT CAPSULES

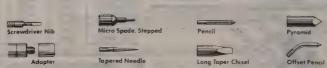
Accept all 1/8" nibs and tiplets (listed at bottom of page).

Stock	k Mfr's		1		EACH			
No.	Type	Temperature	Watts	Reach	1-9	10-49	50-Up	
972-6910 972-6915 972-6918		575-650°F 700-775°F 775-850°F	10 15 18	2%" 2%" 2%"	8.85 8.85 8.85	7.08 7.08 7.08	5.90 5.90 5.90	

MODULAR DESIGN

"Standard Line" and "Princess Line" Soldering Irons Offer Convenient Modular Design That Lets You Create an Iron to Meet Your Specific Requirements. You Can Order the Handle You Prefer, Plus an Interchangeable Heater Unit, and the Interchangeable Tips (listed below) That Suit Your Needs. Or, You Can Order a Complete "Standard" or "Princess" Unit and Add Other Heater Units and Tips Later.

INTERCHANGEABLE TIPS .



Select handle and heater unit combination desired—Standard or Princess series—from listings above. Then choose the tip that's exactly right for your job. For even greater versatility, two adapters (types 100 and 101) are available to let you use the complete line of M thread-in tips with thread-on heater units. Even the Princess line of Micro-tips and Nibs is adaptable for your special in peeds. your special job needs.

1/8" THREAD-IN TIPLETS

For use with all Princess heat capsules and Standard heating units 535, 1235 and 4035. Use Adapter 100 for Standard Line heating units 537, 1237, 4037 and all 3-wire irons.

Stock	Mfr's			EACH		
No.	Туре	Description	1-9	10-49	50-Up	
972-0031	PL331	Pencil, iron clad; 1" long, 1/4" dia.	1.28	1.02	.85	
972-0331		Pencil, copper; 1" long, %" dia.	.53	.42	.35	
972-0032		Offset pencil, iron clad; 1" long, %" dia.	1.28	1.02	.85	
972-0332	332	Offset pencil, copper; 1" long, %" dia.	.53	.42	.35	
972-0035	PL333	Chisel, iron clad; 1" long, 1/4" dia.	1.28	1.02	.85	
972-0333	333	Chisel, copper; 1" long, %" dia.	.53	.42	.35	
972-0038	PL338	Tapered needle, iron clad; 1" long x 1/4"	1.28	1.02	.85	
972-0040		Micro spade, iron clad; ½" long, .054" dia.	1.28	1.02	.85	
972-7155		Chisel, iron clad; ¾" long, ¾" dia.	1.28	1.02	.85	
972-7154	7154	Pencil, iron clad: %" long, %" dia.	1.28	1.02	85	

3/16" THREAD-IN TIPS

For use with Standard Line heating unit 4045. Use Adapter 101 for Standard Line heating units 537, 1237, 4037 and all 3-wire irons. Wt. 3 oz.

Stock	Mfr's			EACH	
No.	Type	Description	1-9	10-49	50-Up
972-0055 972-0824	PL824 824	Chisel; iron clad; silver plated; 1" long Chisel; copper; 1" long	1.45 .60	1.16 .48	.97 .40

		ADALIENS			
Stock No.	Mfr's			EACH	
	Туре	Description	1-9	10-49	50-Up
972-0100	100	Adapts %" thread-in tiplets and nibs to thread-on bodies	.43	.34	.28
972-0101	101	Adapts 3/16" thread-in tips to thread-on bodies	.43	.34	.28

1/4" THREAD-ON TIPS

For use with Standard Line heating units 537, 1237, 4037; and all 3-wire irons. Prefix PL indicates iron clad copper, silver plated. Shpg. wt. 3 oz.

Stock	Mfr's				EACH	
No.	Type	Description Description		1-9	10-49	50-Up
972-0010		Pencil, iron clad; ¾" long, ¼" dia.		1.65	1.32	1.10
972-0111		Pencil, copper; ¾" long, ½" dia.	1	.80	.64	.53
972-0015 972-0113		Chisel, iron clad; ¾" long, ¼" dia. Chisel, copper; ¾" long, ½" dia.	**	1.65	1.32	1.10
972-0020		Micro spade, iron clad; 1/8" dia.	1	1.65	1.32	1.10
	PL133	Long Taper Chisel, iron clad; ¾" x 1/16"	1	1.65	1.32	1.10
972-0116	116	Pyramid, Copper; ¾" x 5/16"		.80	.64	.53

1/8" PRINCESS SOLDERING NIBS

For use with all Princess heat capsules, and Standard Line heating units 535, 1235 and 4035. Use Adapter 100 for Standard Line heating units 537, 1237, 4037 and all 3-wire irons. *In Description column Indicates iron-clad gold-plated copper; all others are plain copper. Shpg. wt. 3 oz.

Stock	Mfr's	Mfr's Size, Inches				EACH		
No.	Туре	Description	L. Dia. Tip		1-9	10-49	50-Up	
972-6952	6952	Spade	.61	1/8	.08	.75	.60	.50
972-6962	6962	Spade*	.62	.13	.08	1.40	1.12	.93
972-6951	6951	Screwdriver	.60	1/8	.005	.75	.60	.50
972-6961	6961	Screwdriver*	.62	.13_	.06_	1.40	1.12	.93
972-6950	6950	Pencil	.61	.125	.015	.75	.60	.50
972-6960	6960	Pencil.*	.62	.130	.015	1.40	1.12	.93
972-6953	6953	Precision	.61	1/8	.005	1.48	1.18	.98
972-6963	6963	Precision*	.61	1/8	.010	2.63	2.10	1.75



Remove solder from printed circuit board Hemove solder from printed circuit board connections quickly, cleanly. Desoldering takes only seconds — heat does not build up in components and circuitry. Leaves only a non-conductive rosin residue so that resoldering is possible without cleaning. This dry wicking method eliminates flux spatter and leaves less residue than wet wicking or sucking methods.

TYPE 51-S. For miniature and subminiature circuits. Five-foot spool in convenient plastic pouch. Wt. 3 oz. 809-3000. 1-4...Ea. 1.92 5-9... Each 1.10

TYPE 51-T. For circuits requiring a larger

wick for complete removal of solder. Five-foot spool. Wt. 3 oz. 809-3010. 1-4...Ea. 1.92 5-9...Ea. 1.54 10-19...Each 1.28 20-Up...Each 1.10

ALLIED RESIN CORE SOLDER

Stock	Spool	Tin/Lead C	Core Diam.		EAGH			
No.	Size		COIE	Diam.	1-4	5-10	11-Up	
707-5110	1#Spools	60/40	#66	.062"	7.55	6.04	5.04	
707-5120	5#Spools	60/40	#66	.062"	24.96	22.46	20.22	
707-5100	1#Spools	60/40	#66	.050"	8.10	6.48	5.41	
707-5090	1#Spools	60/40	#66	.040"	8.37	6.70	5.59	
707-5070	1#Spools	60/40	#66	.031"	8.58	6.86	5.73	
707-5080	5#Spools	60/40	#66	.031"	27.05	24.34	21.91	
707-5060	1#Spools	60/40	#66	.025"	9.55	7.64	6.38	
707-5050	1#Spools	60/40	#66	.015"	13.32	10.66	8.95	
707-5040	1#Spools	40/60	#66	.062"	4.20	3.53	3.00	
707-5140	1#Spools	63/37	#66	.062"	7.93	6.34	5.30	
707-5130	1#Spools	63/37	#66	.031"	8.95	7.16	5.98	

ALLIED SOLID WIRE SOLDER

Solid wire for use with external flux is the equal in quality and purity of flux-core solders. Always uniform in diam, and

Stock	Solid Wire	Alloy (Tin/Lead)	Diam.	EACH			
No.			Diam.	1-4	5-10	11-Up	
707-5160 707-5150	1#Spools 1#Spools	63/37 60/40	.062" .062"	7.68 7.58	6.16		

ALLIED BAR SOLDER

Available in all the tin lead alloys, including those for body work. Uniform distribution of tin-lead alloys, in the bar.

Stock	Bar	Alloy	EACH			
No.	Solder	(Tin/Lead)	1-4	5-10	11-Up	
707-5000 707-5010	1#Bars 1#Bars	60/40 63/37	4.93 5.15	4.12 4.34	3.11	



ALLIED'S FINEST RESIN CORE SOLDER

For fast soldering. Features the most active resin flux on the market. Meets all applicable MIL and Federal standards. Flux fungus and oxidation resistant, Used with all Allied soldering products: Allied Electric Soldering Iron, Soldering Gun, LP Gas Torch, Gas Blow Torch, Soldering Copper.



STANDARD SOLDERING IRON OUTFIT Interchangeable Handle, Tips and Heater Units Lightweight and Perfectly Balanced for Fatigue-Free Use • For Production Line, Servicing, and Research Lab Model 7070. Versatile modular soldering Iron includes Type 776 handle and two-wire cord. Type 1237 high-heating element (42 watts—750° to 800° F), three thread-on tips (pencil, chisel and pyramid). Comfortable polypropylene handle with cork grip. Octagon washer prevents rolling. U.L. Listed. For 115 volts. AC-DC. Shpg. wt. 1 lb. 50-Up.....Each 10.50 972-7070. 1-9 Each 8.40

RESIN AND SOLID WIRE AND BAR SOLDER SOLDERING FLUXES

All metals except aluminum. Stable under extreme conditions. Meet all manufacturing techniques: specialized assembly, automation, etc.

Formula No. 1544. Highly

Flux Formula No. 1587. Resintype foaming flux for PC soldering. Non-corrosive, electrically non-conductive and perfectly safe resin formula to military require-

833-1400. 1 pint. 2 lbs.....2.97 833-1405. 1 quart. 4 lbs.....5.00

Flux Formula No. 5235 Remover. For easy removal of resin residue. 833-1415, 1 pint. 2 lbs......12.97 833-1420. 1 quart. 4 lbs.....5.00

TYPE "44" RESIN CORE SOLDER

Highly efficient. Is non-corrosive, electrically non-conductive, fungus resistant. High melting point. All have 1 lb. spool size, #66 core and .062" dia.

Stock	Cilver/Lood/Tin	EACH			
No.	Silver/Lead/Tin	1-4	5-10	11-Up	
833-0100 833-0050	3/61½/35½% 1½/97½/1%	9.17 9.37	7.33 7.48	6.20	

ACID-CORE SOLDER

Flux core solder for automatic repair—highly active and thermally stable. Exact tin-and-lead percentage. 1 lb. spool size. Tin/Lead/Alloy-40/60%. 125" dla. 833-1000. 1-4...5.10 5-10...4.80 11-Up...3.50

SOLID WIRE AND BAR SOLDER

Solid wire for use with external flux. *Solid Wire .093" dia. **Solid Wire, .062" dia. †Solid Bar. All shpg. wt. 1 lb.

Stock		Tin /I and / Allow	EACH				
	No.	Tin/Lead/Alloy	1-4	5-10	11-Up		
	833-1150	95/%5*	7.40	6.52	4.25		
	833-1020	40/60%**	2.97	2.41	2.16		
	833-1080	50/50%†	3.42	2.88	2.56		
	833-0950	40/60%†	2.92	2.46	1.95		

TV ALIGNMENT TOOLS, KITS AND SERVICE AIDS



GC TYPE 9200 ALIGNMENT TOOL KIT

• 27 Most-Needed Radio-TV Alignment

Wall mounting kit includes 27 most needed radio-TV alignment tools. Tools are housed in sturdy, 3-color steel panel with 2-hole mounting. Each tool has an individually sion made of the finest materials including low-loss plastics and extra-hard bone fiber; tips are hardened spring steel. Kit includes: various length alignment screwdriver; special short tools; tilment wrenches; channel tuners; core aligners; socillator adjust; tools; timmer, IF aligners; solder probe; nylon replacement tip for long reach aligner; hex tools; other useful tools. Holding panel mounts on wall. Size of panel is 9¾" high and 18¾" wide.

796-9200. Shpg. wt. 3 lbs.

TYPE 8283 TV TOOL KIT



Complete 25-piece master deluxe alignment tool kit for television use. In handy roll-up case; each tool has a slot of its own. Ideal for TV service engineers; can easily be taken on service calls. Consists of high-quality, precision-made tools, none over 9" in length. Kit includes: K-Tran tool; core aligner; long-reach aligner; flexible wand; short tool; and other helpful TV alignment tools.

796-8283. Shpg. wt. 1 lb.....Each 17.41

TYPE 8280 TV TOOL KIT

Contains 16 most popular TV alignment tools in a handy roll-up plastic case. Kit includes: "Shorty" duplex aligner; tuning wand; core aligner; oscillator tool; long-reach aligner; ½" sq. socket wrench; K-Tran tool; 0.100 hex wrench; recessed screwdriver; others. Tips of Delrin, extra-hard bone fiber, or hardened spring

796-8280. Shpg. wt. 8.oz......Each 11.35

peranting to a	Stock	Tuna	Ei.	Description	Oz.		CH
111111111111111111111111111111111111111	No.	Type	riy.	Per Latin Tora Description	02.	1-9	10-Up
30 21 . 52	796-5009	5000	1	Alignment screwdriver	3	.90	.61
1: 1.1	796-5003 796-5004	5003 5004	2.	RCA coil, pushbutton screwdriver Delrin all-wave set aligner	3	1.08	.72
M CX X	796-5097	5097	4	K-Tran and IF aligner	3	1.40	.94
14 0	796-8195	8195	5	Channel tuning tool	3	1.40	.94
15 3	796-8271	8271	6	Stackpole stud-type core aligner	3	1.25	.83
10 0	796-8275	8275	7	Zenith universal aligner	3	1.08	.72
16 (8)							
0-19	796-8276	8276	8	Short duplex aligner	3	1.08	.72
[17] (3)	796-8277 796-8282	8277 8282	9	2%" duplex aligner Zenith ,100 hex wrench and aligner	3	1.08	.72
00/ 3	796-8605	8605	11	Capacitor/tuner hex and screwdriver	3	1.15	.77
[18]	796-8606	8606	12	Zenith-Admiral Delrin 5" hex wrench	3	.80	.53
0	796-8607	8606L	13	11" Delrin hex wrench	3	1.05	.69
19 0							
[20]	796-8721	8721	14	9" standard/thin stud aligner	9	1.40	.94
	796-8722	8722	15	7" duplex #4 and #6 stud aligner	3	1.25	.83
[21]	796-8728 796-8727	8728 8727A	16 16	12" fiberglass screwdriver 7" Delrin plastic screwdriver	3	1.08	.72
00	796-8729	8729	17	16" fiberglass screwdriver	3	1.40	.94
22/2	796-8867	8867	18	1.F. aligner #4, #6 recessed blades	3	1.73	1.16
	796-8869	8869	19	7" double hex aligner .100" and .125"	3	2.55	1.70
23 6				1 1 1 1			-27
	796-8987	8987	20	7" blade plastic screwdriver	3	1.30	.86
[24]	796-8867	8988	21	12" blade plastic screwdriver	3	1.63	1.09
(2) (X)	796-9089	9089	22	5%" thin-end metal-tipped aligner		1.08	
25)	796-9092 796-9296	9091L 9296	23	11" double-end .125" hex wrench 11" nylon .075" hex wrench	3	1.15	.77
	796-9300	9300	25	.075" hex coil slug and alignment	3	.90	.61
Par in a sta							

Soldering Aids and Accessories

MODEL TC-100/ST FIELD ENGINEER'S TOOL SET



Contains 57 single tools and 5 sets to meet almost any field service need.

SERIES 50 SOLDERING IRON



MODEL 50-3. Thermostatic control is built-in, keeping the temperature constant regardless of speed of soldering, or line voltage variations. Element is 50 watts; provides fast initial heating and almost instant recovery from heavy loads. Operating temperature adjustable for 400° to 750°F. Because of low temperature capability iron is ideal for delicate semi-conductors to heavy lugs and terminals. Safety light built-in handle to show set is on. Fitted with special copper alloy tip, iron coated for long life. Cord-set is U.L. approved 3-wire grounding type. For 100-130 VAC.

613-0100 Each 27.35 613-0110. Tip for 50-3 Each 1.65

MODEL S-50 SAFETY STAND. Heavy duty safety stand has rubber feet to prevent sliding. Protective cage eliminates possibility of accidental contact with hot shaft or soldering Comes with replaceable wiping sponge. 613-0120

LOW-VOLTAGE SOLDERING IRON TRANSFORMER



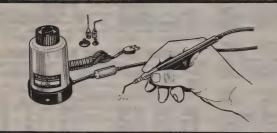
- Exact Temperature Control on any 6-Volt Soldering Iron
- Output 4½ Volts to 6 Volts in increments of ½ Volt

LOW-VOLTAGE, MINIATURE PRODUCTION SOLDERING IRONS



Weighs as little as 1/4 oz. Mfr's Type 6A and 9-6: for normal component parts such as diodes, 1/4 and 1/4 watt resistors, transistors, etc. Mfr's Type 11-6: for special solder alloys. All 6" long.

Stock	Mfr's	W	V	Oper.	Tip.	EA	CH
No.	Туре	44	Ľ	Temp.	Dia.	1-9	10-Up
613-0200	6A	6	6	690°F	3/32"	10.02	8.94
613-0300	9-6	8.3	6	750°F	5/32"	10.02	8.94
613-0400	11-6	10	6	835°F	3/32"	12.69	11.34
613-0500	115-15 J-3	15	1115	775°F	3/32"	12.54	11.94
613-0600	Type A			V Iron		1.45	.86
613-0700	Type J	Tip	For 1	15V Iron		3.10	1.86



PRECISION VACUUM TWEEZER SYSTEM KIT MODEL K-150. Particle handling system positively and precisely lifts particles varying in size from microscopic to those weighing several ounces. Particles are handled without damage or contamination. Defects caused by pinching, scratching, or marring are eliminated. Critical surfaces are protected from possible harm. Vacuum is turned on and off with the forefinger. For 115 VAC operation. No fancy set-up. Comes complete—ready to plug-in and go to work! Vacuum generator; probe; tip, .006" i.d., #30; tip, .01 i.d., #25; tip, .016" i.d., #22; tip, .047" i.d., #16; neoprene cup, .5" dia.; neoprene cup, .25" i.d.; tubing, 4-ft. length; filter.

WIRE-STRIPPING PLIERS



MODELS T-52 and T-56. Unique wire-stripping pliers. Just squeeze and pull and insulation peels off easily and cleanly. Completely self-adjustable. No operator adjustments are required when changing from one wire size to another. Completely self-adjusting strippers have many narrow cutting blades that close in around the wire to automatically provide correct stripper opening and tension. Model T-52 takes wire from #18 to #24. Model T-56 takes finer wire from #18 to #28.

613-2000	Model T-52E	ach 15.96
613-2001	Replacement blade for T-52E	ach 7.85
	Model T-56 E	
612-2001	Poplessment blade for T.FO =	

"FREEHAND" SOLDER FEEDER



614-0200. SF5500. For Weller D550. Each 10.02 614-0300. 20 ft. Spool .062" Flux-core Solder. Pkg./3 ... Price Per Pkg. 7.43

METRIC CONVERSION WHEEL





- Just Line Up Value You Wish to Convert by Lining Up Arrows—then Read Your Answer.
- Converts U.S. Linear, Area, Weight, Volume into Metric Equivalent.

Simple to operate. Amazingly easy to read. With this handy new conversion calculator, simply set the value you wish to convert by lining up the arrows - then read your answer. Converts any U.S. linear, area, weight, liquid or volume into metric equivalents (or

678-6670. 1-24 25-49....Ea. 1.25 50-Up....Ea. 1.00

ELECTRIC ENGRAVER

MODEL 290. Permanently marks most materials from hardened steel to glass. Calibrated 5 pos. stroke adjust, regulates length of stroke and depth of engraving. High speed reciprocating motor delivers 7200 strokes per minute. Solid carbide point. Nylon housing with hanger ring, pencil grip. 115 VAC.
772-0290. Shpg. wt. 1½lbs...Each 14.95 NO. 9929 DIAMOND ENGRAVING POINT. For Model 290 above.
772-9929. Each 8.95



ALLIED SOLDER POTS

- For Dip Solder Jobs
- Replaceable Elements Production Line Use

Rugged low-cost pots for small dip-soldering lobs. Perfect for tinning wires and component leads. Order replaceable elements below. 200 or 250 watts, up to 2 lb. capacity. Sizes: SP-200, 2¾x2¾x½" deep; SP-250, 3¾x2x1¾" deep. Complete with power cord. Pot capacity: SP-200, 1¾ lbs.; SP-250 2 lbs. AC or DC operation at 110 to 120 volts. Shpg. wt. 3½ lbs.

Stock No.	Mfr's Type	Watts	EACH
840-3505	SP-200	200	13.75
840-3510	SP-250	250	13.75

nickel-chrome wire. Wt. 4 oz. 840-3500. Type A. For SP-200. 840-3502. Type B. For SP-250.

308 • ALLIED

Problem-Solving Hand Tools and Sets

G

ALLIED® TOOLS PRECISION CRAFTED FOR THE ELECTRONICS INDUSTRY

- Forged from Finest Tool Steel
- Bonded Vinyl Cushion Grip for Comfort, Electrical Insulation
- Heat-Treated Cutting Edges

Our own quality electronics tools offer extra value! All have highly polished heads and shoulders. Accurately machined and ground for smooth action. Hammer forged from finest tool steel. Precision heat-treated cutting edges provide optimum temper, fast, easy cutting and long wear. Vinyl cushion grips isolate user from electrical shock. Bonding prevents chipping or

peeing.
Comfortable, nonslip grip also resists the effects of chemicals, acid and grease. These tools carry a full one year guarantee. Pliers with * have cross-coil spring. Manufactured in the U.S.A. to Allied's own specifications.

Stock No.	Type No.	Fig.	Lgth.	Description	Wt., Oz.	Asst'd	EACH 5-Up
996-0238 996-0240 996-0253 996-0236	0240 0253	A A B C	6 8 6 7	Electrician's Side Cutting Pliers Electrician's Side Cutting Pliers Long Needle or Snip-Nose Pliers Extra-Long Chain-Nose Cutting Pliers	8 16 6 6	7.77 6.69 6.40 7.60	6.22 4.78 4.28 5.07
996-0256 996-0225 996-0226 996-0227	0225	DEEE	6 4½ 5 6	*Long-Nose Pliers Diagonal "Oblique" Cutting Pliers Diagonal "Oblique" Cutting Pliers Diagonal "Oblique" Cutting Pliers	3 2 3 3	7.75 4.98 5.15 6.93	6.20 3.56 3.68 5.54
996-0247 996-0237 996-0241 996-0249 996-0206	0237 0241 0249	FFGHJ	66576	Long Chain Needle-Nose Pliers Long Chain Needle-Nose Pliers, Cutter 'Radio, Ignition Long-Nose Cutting Pliers 'Extra-Fine Long-Nose Pliers Satin-Finish Combination Pliers	33335	4.31 5.37 7.60 4.70 1.96	3.08 3.84 5.07 3.36 1.40
996-0209 996-0213 996-0232 996-0233	0213 0232 0233	JKK	8 6 4½ 5	Satin-Finish Combination Pliers Satin-Finish Thin-Nose Combination Pliers *Diagonal Needle-Point Cutting Pliers *Diagonal Needle-Point Cutting Pliers	9 5 2 3	2.32 3.30 6.77 6.69	1.60 2.36 4.56 4.78
996-0234 996-0251 996-0229 996-0220	0251 0229	M N P	5 5 4½ 10	Short Chain Needle-Nose Cutting Pliers *Slim Nose Pliers *Needle Point Diagonal Flush Cut Pliers Tongue-N-Groove Utility Pliers	3 6 16	5.15 5.43 6.88 5.76	3.68 3.84 4.92 4.12

ALLIED SCREWDRIVERS-THE RIGHT TOOL FOR EVERY JOB!

Allied's own flat-bit and Phillips head screwdrivers save time and effort on assembly line and production jobs. Tough, durable blades mean long service life. Shockproof amberyl handles are correctly sized to match the blade and are comfortable to the hand. All are made of nickel-plated chrome vanadium steel which is specially treated for toughness and correct hardness. Precision points fit screws properly for the best job.



REVERSING SCREWDRIVER

MODEL DU-2. Versatile, precision tool has %6" dia., regular and #1 Phillips blade. 975-9811. Shpg. wt. ½ lb.....Each 2.28



- Nickel-Plated Chrome Vanadium Steel
- Shockproof Handle
- Blades Solidly Fixed in Handles
- Precision Points Fit Screws Properly

FLAT-BIT SCREWDRIVERS 7 oz.

Stock No.	Mfr's Type	Handle DxL	Shaft Size DxL	EACH
975-9801	9801	5/8 x 2 3/4	1/8x4	1.10
975-9802	9802	5/8 x 2 3/4	1/8x6	1.15
975-9803	9803	5/8 x 2 3/4	1/8x8	1.20
975-9804	9804	1 x3½	3/18X4	1.45
975-9805	9805	1 x3½	3/16X6	1.63
975-9806	9806	1 x3%	3/16X8	1.73
975-9807	9807	1x35/s	1/4×4	1.75
975-9808	9808	1x35/s	1/4×6	1.85
975-9809	9809	1x35/s	1/4×8	1.95



PHILLIPS SCREWDRIVERS 6 oz.

Stock No.	Mfr's Type	Handle DxL		Point No. Size		EA.
975-8830 975-8826 975-8827 975-8824 975-8825	9826 9827 9824	5/8 x 2 3/4 1/6 x 3 1/2 1 x 3 5/8 1 1/1 6 x 4 1 3/1 6 x 4 1/2	21/4 3 4 6 8	0 1 2 3 4	1/8 3/18 1/4 5/16 3/8	1.18 1.60 1.98 2.73 3.08

STUBBY PHILLIPS SCREWDRIVERS 5 oz.

	Handle DxL				EA.
975-9828 975-9829	11/4x21/8 11/8x13/4	1¾ 1¼	2	1/4 3/16	1.73

PRECISION NUTDRIVER



MODEL SA-711. Really versatile driver that performs a multitude of jobs. Adjusts itself automatically to fit four sizes of hex nuts from 1/4" to 7/16". Requires absolutely no manual adjustment.

HANDY VOLTAGE TESTERS



MODEL 70008 CONTINUITY TESTER. Checks for open circuits and broken wires, other malfunctions. 975-9854. Shpg. wt. 2 lbs.......



MODEL TK 500 CIRCUIT TESTER. Dependable neon tube indi-MODEL AN 2 HIGH-VOLTAGE TESTER. Ideal for tracing high

NIBBLING TOOL

Precision hand nibbling tool is indispensable for home or shop applications. Cuts holes, slots, openings, complex designs in metal, plastic and 8-gauge steel. Quick, easy to use. Leaves edges smooth, no deburring necessary, Wt. 1 lb. 910-5904. Type 64-822..........7.80



POW'RIVETER

MODEL 495. For fast: easy riveting of sockets into chassis, fabricating enclosures, more. Features a 2-way head for \%" and \%2" rivets. 975-9852. Wt. 1 lb...6.52



SNAP RING PLIERS



Make quick, easy work of "C" ring attachments. 975-9850. Model 210. For internal rings. Shpg. wt. 8 oz...4.08 975-9851. Model 220. For external rings. Shpg. wt. 8 oz...4.08

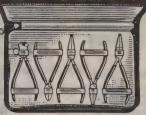
DIAL-TYPE STRIPPER/CUTTER

Dial Selects Gauge of Wire You Want To Strip

Versatile spring-loaded stripper and cutter adjusts to any gauge wire from #12 to #24. Makes insulation stripping easy and accurate. Flush cutting action. Plastic cushioned grips. 910-5803. Type 64-1952.....Each 2.29



ALLIED 5-PIECE 41/2" PLIERS SET



Set of five most-needed pliers handy zippered leatherette case. are made of drop-forged, fine-grain steel. Highly polished heads and shoulders. Heat-treated cutting edges for fast-cutting and long wear. Comfortable vinyl cushion grips provide electrical insulation; are crack and peel-proof. Includes diagonal cutter, end-cut nipper, chain-nose pliers, flat-nose pliers, round-nose pliers. 1¼ lbs. 996-0257. 1-2 Sets. Ea. 21.00 3-Up Ea. 15.40



ALLIED 1/2" PLIERS AND **CUTTERS**

Same quality construction as listed in above set. Fig. R is for close cutting; S, end cutting; T, W and X, smooth jaws. Each, 5 oz.

140.	Type No.	Fig.	Description	EA.
996-0228 996-0243 996-0246 996-0250 996-0254	0243 0246 0250	S T W	Diag, Cutter End-cut Nipper Chain Nose Flat Nose Round Nose	4.92 5.60 5.35 4.53 4.87

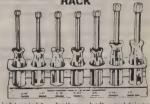


ALLIED HOLLOW-SHAFT NUTDRIVER

 Feature Shockproof Handles
 Tempered Steel Blades T01-4 | 11-41- | 11

Stock No.	Type No.	Size In.	DxL In.	Size In.	EA.
975-9832 975-9833		3	1x35/8 1x35/6	3/18	1.65
975-9834 975-9835	9834	3	1x35/s 1x35/s	1/4 * 9/32	1.65
975-9836 975-9837	9836	3	1x35/8 1x35/8	5/16° 11/32°	1.65
975-9838 975-9839	9838	3	1x3% 11/16x4	3/8° 7/16°	1.65 2.08
975-9840 975-9841 975-9842	9841	3 4 4	1½sx4 1½sx4 1½sx4	1/2 ° 9/1 6 5/8	2.08 2.63 2.95

ALLIED 7-PIECE NUTDRIVER SET IN SELF-SUPPORTING RACK



Lightweight, hollow-shaft nutdrivers with molded, color-coded "Amberyl" plastic handles. Nickel-chrome plated drivers. Seven popular sizes for most nut tightening and loosening jobs. Drop-forged and heat-treated for hardness. All-metal stand can be permanently attached to workbench or wall. Shpg. wt. 1% lbs. 975-0201. 1-4 Ea. 13.58 5-Up Ea. 9.05

Problem Solving Tools and Sets

PLIERS FOR THE ELECTRONICS INDUSTRY



SUFFIX CODE

C-Cushion Grip D-Polished Plate F-Full Polished G-Plain Unscored Jaws H-Fine Serrated Jaws J-Flush Edges S-Coil Spring T-Rib Cushion Throat



Rugged drop-forged alloy-steel tools for a wide variety of applications in the electronics industry. All Jaws are electronically controlled induction hardened and edges are hand-honed. Cross-coil spring holds pilers in open position—reduces operator fatigue over long periods of use and increases efficiency. Handles are primer coated and dipped in heavy Plastisol for smooth grip and positive control. Heads and handles are polished and precision connected.

Needle-nose pliers have long reach for picking up small parts with ease; dowel pin holds jaws in alignment. Cutting pliers have angled edges for long-term performance. Note: see Suffix Code above for explanation of letters in description column in table below. Average shpg. wt. 6 oz. each.

NEEDLE-NOSE	AND	CHAIN-NOSE	PLIERS

Stock	Fi.	Mfr's	Mfr's Type		Perceiption	Asstd. Each	
No.	Fig.	EDP No.	Cat. No.	Lgth. In.	Description and about the	1-5	6-Up
996-6135 996-6135 996-4226 996-6585	1 2 3	16126 16135 14226-11 16585	72CG-511 79CG-511 51CG-6½ 56CG-6	6½ 5½	Short Chain Nose (CFHS STD) Bent Chain Nose (CFHS STD) Long Chain Nose W/Side Cutter Pickup and Wiring (CFGS STD)	9.43 10.16 8.01 9.60	7.70 7.26 5.72 6.86
996-8526 996-8416 996-6536	5 6 7	16526-11 16416-11 16536-11	56CG-611	6 6½ 6	Curved Nose Long Needle Needle Nose Curved Chain Nose	8.54 7.42 8.01	6.10 5.30 5.72

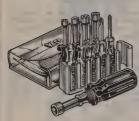
DIAGONAL CUTTING PLIERS

996-3246	8	13246	67CG	6	Long Handle Diagonal	11.56	8.26
996-3124	9	13124-11	84CG	4	Diagonal Cutting W/Flush Edges	9.97	7.30
996-3145	10	13145-11	55CG	5	Special Diagonal Cutting	7.56	5.40
996-3234	11	13234-11	84CG	4	Flush Edge Diagonal Cutting	8.40	6.00
966-3126	12	13126-11	95CG-511	6	Fine Tapered Nose—Semi-Flush	10.30	7.36
996-7526	13	75263	84CG-411	4	Flush Cut Diagonal (CFJS STD)	8.82	6.30
996-7536	14	75316	74CG-411	4	Very Thin Nose Flush Cutting (CJS STD)	12.60	9.00
996-3214	15	13214-11	54CG	4	Midget Diagonal Semi-Flush	8.40	6.00

MICCELL ANEQUE DI IEDE

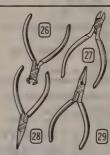
-5135 -3825 -3845	16 18 19	15135-10 13825-10 13845-10	62CG-611	5½ 5½ 5	Transverse End Cutting Compound Action Diagonal Compound Action Cutter/Crimper	8.62 10.90 10.60	6.16 8.10 7.92
-------------------------	----------------	----------------------------------	----------	---------------	--	------------------------	----------------------

HIGH TORQUE TOOL SETS



Finely crafted sets for hobbyists, professionals and do-it-yourselfers. Each set of drivers performs a multitude of jobs. Precision made, they provide that delicate touch needed for fine tuning and delicate instrumentation work. Or, you can use the high torque handle to provide power for regular jobs. Note: Contact Allied Electronics for quantity prices.

Stock Mfr's No. Type		Description	EACH	
975-9901	PS88	8-pc. Screw Driver Set	8.97	
975-9903	PS120	10-pc. Nut Driver Set	12.33	
975-9905	PS89	10-pc. Allen Type Hex Key Set	10.68	
975-9910	PS130	10-pc. Combination Set	12.33	



MINIATURE ELECTRONICS PLIERS

general purpose tool.

• Insulated Grip
• For Repairs, Building
• Prop Forged
• Fully Polished

(26) Type 64-1840. 4" nippers. Rugged quality made for hard, close work. (27) Type 64-1841. 4½" diagonal pliers. Ideal for wire work in hi-fi and hobby use. (28) Type 64-1843. 4½" long nose pliers. Great for delicate electronic jobs. (29) Type 64-1842. 4½" flat nose pliers. Precision manufactured general purpose tool

Stock No.	Type No.	Fig.	EACH	Stock No.	Type No.	Fig.	EACH
				910-2115 910-2110			
910-2105	64-1841	27	2.69	910-2110	64-1842	29	2.69

20 22 23 **ALLIED PRECISION** 25 **ASSEMBLY TWEEZERS**

Our Own Fine Quality Steel Tweezers in a Variety of Precision Styles

Designed for electronics assembly of miniature and micro-fine scale. Constructed of the finest quality steel—precision workmanship assures freedom from misalignment in heavy use. Hand-ground; points are ground flat on the inside. Precision sharp and shaped points, tension spring action. In a wide variety of styles—see illustrations. In table below; carbon steel denoted by (C); staintess steel (SS). Symbols in Figure column. "Bevelled sharp tips; †bevelled medium tips. All others are round sharp. Average shpg. wt. ½ oz.

J					EA	CH
	Stock No.	Fig.	Style	Type Steel	1-	12- Up
	536-2002 536-2227 536-2055	20† 20†	231 227 55	SS C SS	4.89 3.50 3.84	3.92 2.80 3.08
	536-2005 536-2007 536-2008 536-1100	21 22 22 23*	5 7 7 MM	SS o SS C	4.13 5.53 6.92 3.84	3.30 4.42 5.54 3.08

ELECTRICIAN'S SCISSORS

TYPE 925. Fine quality electrician's scissors are 5" long; 134" cut length. Shpg. wt, 3 oz. 536-2925. 1-11. Each 7.35 12-Up. . . . Each 5.88
TYPE 925C. Same as above, but with wirestripping notches on back of blade. Shpg. wt. 3 oz. 536-2926. 1-11. Each 7.35 12-Up. Each 5.88

99SM SERVICE MASTER SET



998

6" long-nose, 5" diag. pliers; 6" adj. wrench. 9 reg. nut-drivers from %6-72"; ¼4, %6, %6" screwdrivers; #1 Phillips screwdrivers; #4 - %6" reamer; ¼4-½" reamer. 8" ext. blade; reg. handle; stubby handle. Shpg. wt., 2¾ lbs. 995-2010. Each 37.20

99MP MULTI-PURPOSE SET



Regular handle, tee handle, 10 reg. nutdrivers ½2-½"; 9 Allen screw drivers .050-¾6"; 9 Bristol screwdrivers .048-183", ¼, ¾6", slotted screwdrivers; ‡1 Phillips; ¾-¾" and ¼-½" reamers, awl, scriber. With canvas case. Wt. 4 lbs. 995-2000. 995-2000. Each 39.00

HOBBYIST KNIFE KIT



TYPE 64-1801. Lets you per-form delicate work with preci-sion. Kit includes left and right hand etchers, stencil cutters, scriber, carver, scraper and ten precision ground, all-purpose steel blades. Shpg. purpose wt. 1/2 lb. 910-5905 Each 2.19

MULTI-PURPOSE SEIZER



Holds Wires, Acts as a Heat Sink, Retrieves Parts

Versatile tool clamps firmly to hold wires for soldering; acts as a heat sink—retrieves small parts from hard-to-reach places. Have two-position snap lock, serrated jaws, box-joint construction. Precision machined from stainless steel.

Type 42H Straight Nose. 3 oz. 995-1000 Each 8.50 Type 43H Curved Nose. 3 oz. 995-1001 Each 8.75

MODEL K7 HEX NUT OUTFIT



MODEL K7 STAND-UP-HANG-

MODEL 99PR COMBINATION KIT

Screwdrivers and **Nutdrivers** in **Handy Kit**



Work faster and more efficiently. Now you can stop using a substitute tool because the correct size isn't available. Kit contains 13 chrome-plated pieces in a convenient roll-up plastic pouch. Includes: 9 nut-drivers from %c" to ½" in ½2" steps; 2 single-end screwdrivers, %6" and ¼" size regular screw blades; 2 single-end Number 1 and 2 Phillips screwdrivers, plus plastic handles. Wt. 2 lbs. plus plas 2 lbs. 995-2002

HEX KEY HOLDER AND BLADE SET



Allied Has Complete Stock of Tools for the Electronics Industry

Vises, Punches, Tools and Accessories

QUALITY VISES FOR PROFESSIONAL AND HOBBYISTS



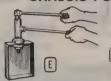
 988X7550. Shpg. wt. 19 lbs.
 Each 14.96

 Model 535. Above, but has 3½" jaw. Max. opening, 3". Takes pipes ½" to 3".

 988X7535. Shpg. wt. 11 lbs.
 Each 14.90

CHASSIS PUNCHES











C TYPE	2 lbs	ຸ"D"	PUNCHES.	For	cutting	"D"	shaped
799-3270.	For	1/2"	hole			Ea	

731R MINIATURE RELAY SOCKET PUNCH. Insert punch into %6" hole and turn with wrench. Cuts metals to 16-gauge thickness. Hole dimensions: .861x1.018".

E TYPE 1804 RATCHET KNOCKOUT PUNCH-DRIVER.
Anti-friction lead-thread gives 6 to 8 times faster cutting action. For use with standard ½ to 3" punches and Greeniee 730 chassis punches, 1½6" and larger. For 10-gauge maximum material. With driver assembly, leverage, ratchet handles, 3 adaptor screws. Metal case. 799-3272 Each 87.81

F TYPE 731 SQUARE PUNCHES. Cut square hole in up to 16-gauge metal with wrench. Requires ½" hole.

799-3256. For ½" hole.

Each 16.05
799-3260. For 1" hole.

Each 19.50

G TYPE 732 "KEYED" PUNCHES. Insert punch in drilled hole, turn with wrench. Requires ½" hole except *¼". 1½ lbs.

Stock No.	Size	EACH	Stock No.	Size	EACH
799-3264 799-3266		11.50 11.90	799-3280 799-3281	111/64	10.37 12.80

BALL-BEARING DRIVE SCREWS.
799-3201. AV112-BB. For 1" and 1½" punches. Operate with ordinary wrench. Wt. 1 lb. Each 2.95
799-3203. AV249-BB. Designed for use with 1½", 1½", 1½" and 1¾" punches. Shpg. wt. 1 lb. Each 6.75

TYPE 730 ROUND PUNCHES. Cut smooth holes in sheet metal, bakelite, hard rubber, and composition. Cut through metals up to 16-gauge. Extremely easy to use, just turn cap screw with wrench to cut hole. No reaming or filing necessary. *Indicates meter cutout.

Stock No.	Hole Size	Lead Size	EA	СН
Otook Ho.	Inches	Inches	1-4	5-Up
799-3212 799-3214 799-3216 799-3218 799-3220	1/2 5/8 9/16 11/16	1/4 1/4 1/4 1/4 3/8 3/8	5.78 5.78 5.78 5.78 5.78	3.86 3.86 3.86 3.86 3.86
799-3222 799-3224 799-3226 799-3228 799-3230	13/ ₁₆ 7/ ₈ 15/ ₁₆	% % % % % %	5.78 5.78 6.00 6.65 6.90	3.86 3.86 3.60 4.45 4.63
799-3232 799-3234 799-3236 799-3238 799-3240 799-3242	1 1/8 1 5/32 1 3/16 1 1/4 1 1/8	% 3/8 3/8 3/8 3/8 3/8 3/8	6.90 6.90 6.90 6.90 8.58 9.45	4.63 4.63 4.63 4.63 5.73 6.31
799-3244 799-3246 799-3248 799-3250 799-3252 799-3254	1 % 1 % 2 % 2 ½ 2 ½ 2 2 % 2 2 % 2 2 %	% % % % % % % % %	9.97 13.12 17.32 15.00 25.14 28.46	6.20 8.76 11.56 11.00 19.95 19.10

SPECIALLY-SELECTED TOOL SETS AND SCRIBERS Popular Assortment of Tool Sets to Meet the Needs of Servicemen and Hobbyists MMK-6 MASTER Consists of six individual Tiny Tool Sets-enclosed in sepa

MODEL MMK-6. Includes the following sets described on this page: SC-5, PA-5, SW-5, OE-5, TS-5 and #70. 865-6207. ½ lb.....Ea. 35.00 12-Up.....Ea. 31.50

plastic containers with

chuck-type handle.

SC-5 SCREWDRIVER/AWL SET. 5 interchangeable blades that fit universal, swivel-type handle with screw-type chuck. Blades: 4 screwdriver—055", .070", .080", .100"; plus a 1" awl, in compact plastic container. 5 oz. 865-6212. Ea. 2.82 12-Up. Ea. 2.26

PA-5 PHILLIPS DRIVER AND ALLEN WRENCH SET.
Phillips size: #0, #1, and Allen sizes: #4, #6, and #8.
With chuck type handle.
865-6210. 5 oz.....Ea. 3.95 12-Up......Ea. 3.16

BW-5 MAGNETIC SOCKET WRENCH SET. Fine for hobbyist or handyman. Contains five interchangeable steel hax wrenches and a magnetized, swivel-top handle with chuck. Sizes: \(\frac{4}{3}\lambda_{\circ}^{\circ}\l

OE-5 OPEN-END WRENCH SET. Contains five off-set, open-end steel wrenches, plus chuck-type handle an plastic case. Wrench sizes: ¾4", ¾2", ¼4", ¼6" and ¾2" Shpg. wt. 5 oz. 865-6209......Ea. 3.95 12-Up......Ea. 3.16

TS-5 TINY TAP SET. A specially heat-treated 6-piece set in soft plastic case. Includes five steel taps in sizes 0-80, 1-72, 2-56, 3-49, 4-40. Has knurled chuck handle, torque hole for leverage. Shpg. wt. 5 oz. 865-6218. Ea. 11.25 12-Up. Ea. 9.00

NO. 70 TAP DRILL SET. Contains tap sizes: %4", #53, #50, #47, #43. Shpg. wt. ½ lb. 865-6270.........Ea. 6.20 12-Up.......Ea. 4.96

5 6

NO. 59 MINI TOOL SET. Handle and interchangeable heads: one each—phillips and flat blade screwdriver heads, plus taps and awls. Economical, precision crafted set for home or hobby shop. In plastic container. Shpg.

865-6259......Ea. 5.57 12-Up......Ea. 4.46

#46 CARBIDE POCKET SCRIBER. Features a reversible tip, lock nose, plus handy pocket clip. Wt. 6 oz.

BLADE KNIVES. POWER DRILL



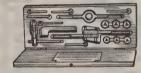
REPLACEMENT KNIFE BLADES

Nos. 11, 12, 16 fit No. 1 knife (Fig. M above); others fit No. 2, 5 knives. 8 fits 8, 8R knives (not listed). Wt. 2 oz.

Fig.	No.	Danneistins	ne Angle 994-1212 .68 994-1248 11.25 prrection 994-1215 .68 994-1251 11.25			
rig.	NO.	Description	Stk. No. Pe	r Pkg.	Stk. No.	Per Pkg.
N P	8 11 12	Gen. Purpose Fine Angle Correction	994-1212	.68	994-1248	11.25
R S	16 18 19	Etching ½" Chisel Deburring	994-1221 994-1224 994-1227	.68 .68	994-1257 994-1260 994-1263	11.25
T W	22 24	Trimming Close Corner	994-1230 994-1239	.68	994-1260 994-1272	



X H.S. DRILL BIT SETS



QUALITY TAP & DIE SETS

MODEL 614V TAP AND DIE SET. Consists of one each tap and die: 4-36, 6-32, 8-32, 10-32, 10-24 and 12-24 (Machine Screw Standard); 14-20, 16-18, 16-16,

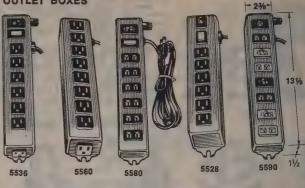
MODEL 613 TAP AND DIE SET. Consists of one each tap and die: 4-36, 6-32, 8-32, 10-24, 10-32, 12-24. Two tap wrenches, one die wrench. With case. 4 lbs.

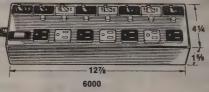
Each 28.75 MODELS S-21 RADIO TAP AND DIE SET. Includes one each tap and die: 6-32, 8-32, 10-24, 12-24, ¼-20. Tap and die wrenches. Carbon steel. Mahogany storage box. 803-9221. Shpg. wt. 3 lbs. Each 16.50 MODEL 35P SCREW EXTRACTOR KIT. Five extractors remove broken screws ¾" to ¾", bolts and study, ¼" and ¼" pipe. Sturdy alloy steel. With plastic case. 803-9435. Shpg. wt. 1 lb. Each 4.00

TAP AWL TOOL

REPAIRMAN'S REAMER

MODEL R120. Smooths, enlarges holes in sheet metal $\frac{1}{2}$ dia. to $\frac{1}{2}$ dia. Shpg. wt. 1 lb. 803-9120 Each 2.90





Rated 15 amps, 130 VAC, mechanically grounded. Steel case. Type 5580 and 5590 are 2-wire, all others 3-wire grounded.

*Pilot light.

tSwitch.

Stock	Mfr's	No.		Circuit	Cord L.	EAG	СН
No.	Туре	Outlets	Fuse :	Breaker	Ft.	1-4	5-Up
533-7000 533-7005 533-7010 533-7015 533-7020	5506 5506 5508 5508 5508	4 4 4 4	 	:: :: :X	6 15 6 15	10.80 13.50 12.05 14.75 14.75	8.64 10.80 9.64 11.80 11.80
533-7025 533-7030 533-7035 533-7040 533-7045	5508 5504*† 5504*† 5514*† 5514*†	433333	×	X X 	15 6 6 15	17.50 15.00 17.63 13.38 16.13	14.00 12.00 14.10 10.70 12.90
533-7050 533-7055 533-7060 533-7065 533-7070	5514*† 5514*† 5536*† 5536*† 5536*†	3 7 7 7	 X X	X X	6 15 6 15 6	16.13 18.75 20.00 22.63 22.63	12.90 15.00 16.00 18.10 18.10
533-7075 533-7080 533-7085	5536°† 5560 5560	7 9 9	::	X .:	15 6 15	25.38 16.38 19.00	20.30 13.10 15.20

Stock	Mfr's	No.			Cord L.	EA	CH
No.	Туре	Outlets	Fuse	Breaker	Ft.	1-4	5-Up
533-7090	5580*†	6	X		6	14.63	11.70
533-7095	5580*†	6	1: .	X	6.	17.38	13.90
533-7100	5528*†	6	X	2 44	6	18.88	15.10
533-7105 533-7110	5528*† 5528*†	6	X	X	15	21.63	17.30
						21.63	17.30
533-7115 533-7120	5528*† 5590†	6	X	X _j	15	24.25	19.40
533-7125	55901	4	` X	V	6	17.25 19.88	13.80 15.90
533-7130	5000*+	7	X		6	21.50	17.95
533-7135	5000*†	7	**	X	6	23.70	19.79
533-7140	6000*†	6	X	a and L	6 .	33.20	27.72
533-7145	6000°†	6	X	12.	15	35.40	29.56
533-7150	6000*†	6	1 * ** ;	X	6	35.40	29.56
533-7155 533-7160	6000*† 7000*†	6	X	. X	15	37.50 25.30	31.31
				*****		-	-
533-7165	7000*†	8	- , X	· Va	15	27.50	22.96
533-7170 533-7175	7000*† 7000*†	8 .		X	15	27.50 29.60	22.96 24.72
000-7170	7000 1	0	0.0,		10	23.00	24.12

ARCHER ELECTRIC **ENGRAVING PENCIL**

Model 64-2173. Easy to engrave bikes, portable radios, TV, stereos, tools, almost anything. Ideal for "operation identification". Engrave your drivers license no. on all items susceptible to theft, then register, items with police. Post stickers on windows to warn thieves. Adjustable stroke and line width. Positive on-off switch prevents accidental operation. U.L. listed. 120 VAC. With instructions. Shpg. wt. 1 lb. 910-5805 910-5805



MOTO-TOOL HOBBY/WORKSHOP SET

Model 281. Features extra rugged ball bearing and 0.9 amp motor. With 34 accessories: steel cutters, grinding wheels, polishing tips, wire and bristle brushes, sanding disc, drum sander, mandrels, dressing stone, wrench, 4 collets, case. U.L. list. 71/4 x111/16" 115 VAC.

772-0281, Shpg. wt. 3 lbs...... Each 52.46 772-0280, Model 280, Tool only, 2 lbs..... Each 41.96 Model 271. Similar to Model 281, above, but has 0.8 amp motor. Accessories included.



MOTO-TOOL ACCESSORIES

ACCESSORY SETS (Cont'd.)

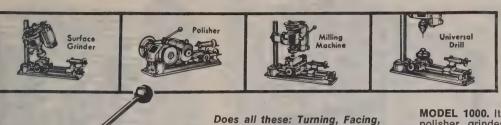
NO. 206. 12-PIECE EMERY WHEEL POINT SET. With six plain shaped wheel points, $4 \times 4''$, ouch. **772-0206.** Shpg. wt. 1 lb......**Each 9.47**

NO. 220. 12-PIECE CUTTER SET. High-speed steel. Use for cutting, shaping and hollowing most metals, plastics and woods. Vinyl fold-up pouch included. 772-0220. Shpg. wt. 1½ lbs. Each 18.95

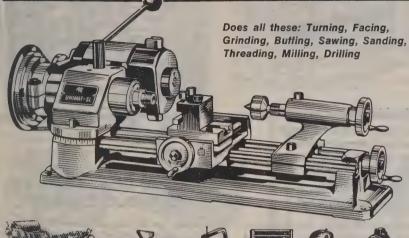
NO. 240. 24-PIECE CUTTER SET. Deluxe version of No. 220, above. More shapes and styles to handle virtually any job. Fold-up pouch included. 772-0240. Shpg. wt. 1½ lbs. Each 32.40

NO. 9900. 12-PIECE TUNGSTEN CARBIDE CUTTER SET.
Outlasts high-speed steel many times. Max. cutting head,
'/a''. Pouch 772-9900. Shpg. wt. 11/2 lbs.Each 49.14

MULTI-PURPOSE 3-INCH METAL-WORKING LATHE



- 5 Precision Tools in One
- Headstock Rotates 360°
- Accurate Within .0005"
- 11-Speed Belt Drive
- **Ball-Bearing Spindle**



MODEL 1000. It's a lathe, drill press, milling machine, polisher, grinder — all in one compact, precision unit. Ideal for use in factory model shops. You can turn, face, grind, buff, saw, sand, thread, mill, drill . . . converts from one operation to another in seconds.

Headstock rotates and revolves 360°, locks at any angle, removes from bed for vertical set-ups. Has ballbearing spindle accurate to .0005". Ball bearing idler bearing spindle accurate to .0005". Ball bearing idler assembly provides 11-speed drive system, powered by self-contained 1/10-hp, 115 VAC motor. Lathe takes pieces up to 3" diameter, 6.9" between centers. Drill takes pieces $6^{1}\!\!/_{4}$ " high, drills to center of $6^{1}\!\!/_{4}$ " circle. Also drills into large panels, plates and chassis by rotating head over end of bed.

Size, 14½x5x5". With wood chest and 40-page illustrated handbook. See full accessory listing below. 115 VAC. From Austria. Shpg. wt. 37 lbs. 970U1000 Each 224.50



LATHE ACCESSORIES

SLOTTING SAW BLADES FOR USE WITH TYPE 1240 CIRCU-LAR SAW ATTACHMENT.

Type 1241 2½" Metal Cutting Blade, Shpg. wt. 5 oz. 970-1241 Each 7.80

Type 1242 2½" Wood Cutting Blade. Shpg. wt. 5 oz. 970-1242 Each 6.54

Type 1243 3%6" Wood Cutting Blade, Shpg. wt. 5 oz. 970-1243 Each 7.21

- TYPE 1080 JIG SAW ATTACHMENT. 6x8" table. 12 assorted blades. Wt. 6 lbs. 970-1080Each 52.55
- TYPE 2820 HIGH-SPEED 1/4" TOOL BIT SET. Set of six. For turning, facing, boring, cutting off. Shpg. wt. 8 oz. 970-2820 Each 22.49
- TYPE 1040 STEADY REST. Supports 1½" bars and tubing for machining, end drilling. 970-1040. Wt. 1 ib...Ea. 19.15
- TYPE 1260 INDEX HEAD.
 Divides, spaces for making gears, etc. Shpg. wt. 1 ib.
 970-1260Each 26.50
- G TYPE 1002 FOUR-JAW INDEPENDENT LATHE CHUCK. Takes pieces to 21/4". With key and mounting adapter 970-1002. Wt. 1 lb...Ea. 44.98
- TYPE 1001 THREE-JAW UNI-VERSAL CHUCK. (Not illus.) Takes pieces to $2\frac{1}{4}$ ". 970-1001. Wt. 1 lb...Ea. 42.69
- H TYPE 1261 WORK PLATE. Holds work in lathe. Capacity, 23/4". Complete with clamps. Shpg. wt. 1 lb. 970-1261 Each 19.10
- Mounts on cross slide, clamps work for milling, 3x5". 970-1210. Wt. 2 lbs...Ea. 22.44
- Fits cross slide or mill table. Has 11/8" V-jaws. 13 oz. 970-1010 Each 20.25

DOUBLE-INSULATED POWER TOOLS

 No Ground Adapter Required
 Breakproof Housings
 Lifetime Guarantee against Defects • Full Line of Homeowner and Industrial Power Tools Available — Call or Write for Pricing

DOUBLE-INSULATED DRILLS

Powerful, comfortable and double-insulated for safety. Contoured pistol grip. Ball thrust bearing construction. Three-jaw geared chuck. High torque, double reduction gear drive. Cord-strain relief. For 115 V, 25-60 Hz AC. Shpg. wt. 4 lbs.



Stock	Mfr's	Description	EACH			
No.	Type	Description	1-3	4-5	6-Up	
662-1070 662-1074 662-1089	4120	1/4" 1000 rpm 3/8" variable 0-1000 rpm 3/8" reversing, variable		10.89 15.79		
662-1084 662-1085	4230	0-1000 rpm 1/2" variable 0-700 rpm 1/2" reversing, variable		29.99 28.10		
002-1005	4230	0-700 rpm	42.73	36.34	34.03	

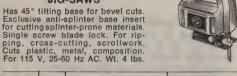
DOUBLE INSULATED 71/4" CIRCULAR SAW

Zips through hardwood up to 23/8" Zips through narowood up to 2% thick. Safety blade clutch prevents kickback. Telescoping blade guard. Blade depth and angle scales. Powerful 8½ amp motor with 5000 rpm speed. U.L. listed. 115 VAC. Shpg. wt. 8 lbs.



Stock Mfr's		Danninkin	EACH				
	Туре	Description	1-3	4-5	6-Up		
662-0075	4510	71/4" circular saw	24.03	20.43	19.14		

DOUBLE INSULATED JIG-SAWS



Stock No.	Mfr's	Description	EACH			
	Type	Description	1-3	4-5	6-Up	
662-3967 662-3969	4300	Single speed 2900 spm Variable speed 900	18.50	14.99	13.90	
002 0000	4020	to 2900 spm	31.90	29.99	27.40	

1/4"-DRIVE RATCHET SOCKET SET



- Hex & Octagonal Sockets
- Complete 17-Piece



Set includes: $5\frac{1}{2}$ " ratchet handle; $5\frac{1}{4}$ " flex handle; 2" and 6" extensions; $4\frac{1}{2}$ " break over bar; hex sockets fit $\frac{1}{8}$ ", $\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{1$ handle. 910-2120. Type 64-1851

GAS WELDING **TORCHES**

Welds, Brazes, Solders, and Cuts

ACCESSORIES

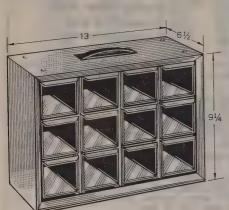
Model 3100 Brazing Rod Kit. 18 silver brazing rods, 6 aluminum brazing rods, 2 jars flux, hot block, sand paper, brush, instructions.

3103 Silver Solder Flux. 11/2 oz.

Type 3104 Aluminum Flux. 1½ oz. 862-3412 Each .63

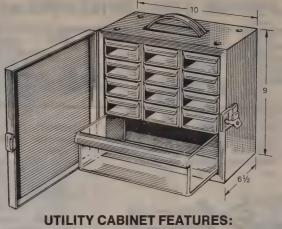
Type 1001 Oxygen Cylinder, 13 oz. 862-3400. Pkg, of 10 Per Pkg, 12.25

Allied Multi-Drawer Utility Cabinets



12-DRAWER PORTABLE CABINET

Type 3012. Twelve double deep drawers allow storage of large items such as hardware, over-sized parts, photoslides. Each "See-Thru" drawer, 2½x2¾x5¾". Unitized steel frame is stackable; measures 9½x13x6½". Rugged baked enamel finish is blue. Heavy-duty carrying handle for portability. Dividable drawer. Keyholes allow easy wall mounting. 707X3012. Shpg. wt., 7 lbs......Each 10.80



- Convenient, Compact Storage
- "See-Thru" Styrene Drawers
- Sturdy Unitized Metal Frames

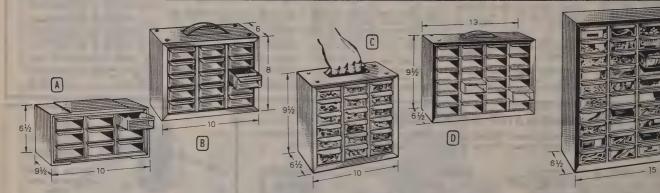
13-DRAWER PORTABLE CABINET

Type 3013. Features 12 compact drawers measuring 234 x 114 x 534 " and 1 super-large 834 x 21/2 x53/4" drawer. Perfect for hobby bench, workshop or household. Unitized steel frame has rugged gray baked enamel finish, measures, 10x9x6½". Handy tote handle and locking door. Drawers are "See-Thru". Unit can be stacked or wall mounted, keyholes on back. 707X3013. Shpg. wt., 5¾ lbs. Each 10.80

36-DRAWER PORTABLE CABINET

Type 3036. Has 36 compact drawers—each 11/4 x 2¾ x5¾ ". Sturdy unitized steel frame measures 16½x13x6½". Durable and attractive baked enamel blue hammertone finish that cannot chip, peel, crack or rub-off. Tote-handle gives mobility to lightweight cabinet. "See-Thru" drawers have adjustable lock-tight dividers for smaller sectioning.

707X3036. Shpg. wt. 8 lbs. Each 12.60



A 9-DRAWER ORGANIZER CABINET

Type 3009. Molded plastic frame. Nine "See-Thru" 234 x 11/4 x 534 " drawers. Baked Avocado finish. Adjustable drawer dividers and labels. Size, 10x9½x6½".

707X3009. Shpg. wt. 4 lbs.......... Each 4.68

B 15-DRAWER PORTABLE CABINET

Type 3015. 15 "See-Thru" 23/4 x11/4 x53/4" draw-

[C] 18-DRAWER PORTABLE CABINET

Type 3018. 18 "See-Thru" drawers, each 23/4 x 5¾ x1¼", in a heavy-duty 10x9½ x6½" unitized steel frame. Metallic blue baked enamel finish. Unbreakable carrying handle. 707X3018. Shpg. wt. 4 lbs. Each 8.30

D 24-DRAWER INDEX CABINET

Type 3024. 24 "See-Thru" styrene drawers—1¼x2½x5¾" each. Metallic blue finish, unitized steel frame, 9x10x6". One divider, label

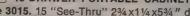
707X3024. Shpg. wt. 7 lbs. 2.200. Each 10.80

E COMPACT 50-DRAWER CABINET

- 50 Crystal-Clear Drawers with Labels and Dividers
- Long-lasting Baked Enamel Finish
- Unitized Steel Frame

Type 3050. Ideal for storage, protection, organization of shop or office small parts. Each "See-Thru" drawer—1½ x2¾ x5¾ ". Indexing with labels and one divider per drawer. Unitized steel frame with a blue finish. 15x16x61/2"

707X3050, Shpg. wt. 8 lbs. Each 15.99



ers. Tote handle for portability. Unitized 8x6" frame. Adjustable dividers. Baked enamel fines. 707X3015. Shpg. wt. 4 lbs. Each 6.93

PLASTIC PARTS STORAGE BOXES

Handy-sized boxes are perfect for organizing small parts such as screws, nuts, solder lugs, small connectors in the shop. Also ideal for small household articles—clips, jewelry, etc. Rugged, brightly-colored high impact polystyrene box with clear lid. Brass hinge pins for extra long wear. Come in red, blue or yellowwe cannot guarantee color.

Model B6. Compact box has six assorted size compartments. Size, 1½x6¾x5".

604-0010. 1-9. Each 1.73 10-Up. . Each 1.55

Model B7. Small box with seven assorted-size compartments. Size, 1½ x6¾ x5 604-0020. 1-9. Each 1.73 10-10-Up. . Each 1.55

Model B9. Larger box has nine assorted-size compartments. Size, 1½x10½x6″. 604-0030. 1-9. . Each 3.48 10-Up. . Each 3.12

Model B18. Larger box with 18 small compartments. Ideal for screws, solder lugs and other small parts. Size, 1½ x10½ x6".

604-0040. 1-9. . Each 3.48 10-Up. Each 3.12

Allied Cabinets Give You More Yet Cost Far Less



Parts Storage Cabinets for Increased Efficiency

CABINETS, BOXES AND CASES

COMPACT MODULAR CABINETS WITH STEEL FRAMES AND STYRENE DRAWERS



Provide efficient, organized storage for small industrial parts and supplies, components, maintenance items and much more. Feature heavy-duty steel frames and sturdy molded styrene drawers. Storage areas are broken down into cubic design for maximum use of minimum space. Standard 18-In. width frame can be easily hung from wall, fitted into standard shelving or stacked on work bench. Nesting "feet" provide stacking stability. Keyhole slots for easy wall mounting. Baked enamel charcoal hammertone finish is chip-proof and scratch resistant. scratch resistant.

Save Time—instantly locate any item. Sort and store parts for easy access.

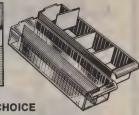
Speed inventory—transparent drawers allow quick visual check... can be easily removed for actual count or weight check.

Versatile—uniform "building block" concept allows adding cabinets to system.



DIVIDABLE **DRAWERS**

All models feature dividable drawari models feature dividable draw-ers that can be easily partitioned into subcompartments allowing ef-ficient, customized storage of large or small items. Patented dovetail dividers lock securely in slots—will not creep or slip.

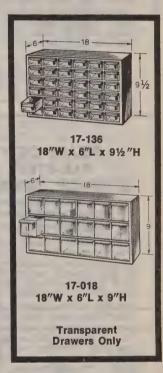


CHOICE OF DRAWERS

Two types of molded styrene draw-ers; both corrosion proof, have safety tab. Gray Heavy Duty: vir-tually unbreakable, hi-impact sty-rene. Transparent: for frequent visual inventories.







CABINET ORDER REFERENCE

Tra	Cabinets With Transparent Drawers		Drawers		Draw- ers		Orawer Size in	4,,		Cabine Size in		Ship.		CH
Sto		Mfr's	Stock	Mfr's	Per		Inches			Inches		Wt.		-
No		Type	No.	Type	Cab.	W.	H.	D.	W.	Н.	D.	Lbs.	1-9	10-Up
723-1	713	17-136			36	23/4	11/4	5%	18	91/2	6	12	22.40	17.92
			723-1822	18-228	28	21/8	21/8	11	18	11.	11	22	37.02	29.62
723-1		17-018	*********		. 18	23/4	21/2	5%	18	9	6	10	22.40	17.92
723-1		17-320	723-1832	18-320	20	31/8	21/8	11	18	11	11	21	33.34	26.67
723-1	741	17-416	723-1841	18-416	16	4	21/8	11	18	11	11	20	33.34	26.67
723-1	771	17-715	723-1871	18-715	15	31/8	31/32	11	18	11	11	20	33.34	26.67
723-1	790	17-909	723-1890	18-909	9	51/4	31/32	11	18	11	11	18	33.34	26.67
*****			723-1860	18-608	8	4	4%	11	18	11	11	22	33.34	26.67
*****			723-1895	18-956	6	51/4	43/4	11	18			22	33.34	26.67
			723-1880	18-803	3	16%	31/32	111	18	11	11	18	29.26	23.41

One cross divider furnished per drawer except 18-803.

CROSS DIVIDERS

Stock	Mfr's	Fits	Package	Per Pkg.		
No.	No. Type Cabinet		Quantity	1-9	10-Up	
723-4050	40-901	17-018	25	2.60	2.08	
723-4090 723-4220	40-501 42-201	17-136 18-228	25 25	1.40	1.12 3.26	
723-4230 723-4240	42-301	17-320, 18-320 17-416, 18-416	25 25	2.60	2.08 2.50	
723-4310 723-4330 723-4440	43-101 43-301 44-401	17-715, 18-715 17-909, 18-909 18-608	25 25 25	3.90 4.15 4.98	3.12 3.32 3.98	

LONG DIVIDERS

Stock			Package	Per Pkg.		
No.	Type	Cabinet	Quantity	1-9	10-Up	
723-4212			10	3.13	2.50	
723-4243	42-431	17-320, 18-320 17-416, 18-416	10	2.60	2.08	

					EA	CH	
Stock No.	Mfr's Type	Fig.	Size Inches	1- 24	25- 49	50- 249	250- Up
543-0220	220	A	4x2%x1%s	.58	.50	.39	.36
543-0230	230	A	5x41/x11/4	.75	.65	.50	.47
543-0231	231	В	4%x41/16x1/16	.34	.29	.22	.21
543-0240	240	A	61/x31/x2	.93	.79	.62	.57
543-0260	260	A	63/16X59/32X25/16	1.35	1.17	.91	.85
543-0221	221	В	3%x2%x1/16	.21	.18	.14	.13
543-0241	241	В	61/4x31/4x1/4	.73	.63	.49	.46
543-0261	261	B	61/2×431/22×1/4	1.01	.88	.69	.64

PLASTIC CASES AND PANELS

Molded plastic cases (Figure A) and matching plastic panels (Figure B) for mounting test equipment . . . Meters fit into cases with flanges. Cases accept sizes up to $4\%'' \times 4\%''$. Cases have recessed corner bosses—flush mounting with cover. All cases require 1/2-in., No. 6 self-tapping screws, except Type 220 which requires $4-36 \times 1/2$ in screws. Walls and covers of cases are made of firm 1/2 inch thick plastic. Shpg. wt.: Cases, 11/2 lbs.; Panels, 1 lb.



A



Cabinets, Shelving, Desks, Tables, Carts, Boxes

ALL-PURPOSE SERVICE CHART



Carries up to 500 lbs. Two trays keep smaller items from falling off. Trays spaced 20" apart to handle larger loads. Top trays reverse for work surface or to allow for wider items. Built of 14 and 20-gauge steel. 5" hard rubber casters, two stationary and two swivel. 32" high.

Stock		Wt.	EACH		
No.	Size	Lbs.	1-9	10-Up	
548-0424	24 x 36 x 32"	56	41.88	37.42	
548-0416	30 x 16 x 32"	32	35.42	28.33	

40-BIN STORAGE RACK



MODEL CC40. Keeps small parts, tools, and hardware in one central location. Stop tabs prevent accidental removal of bins from front or back. Drawer cannot be pushed in too far or pulled out until it spills. Bins are "C" flute corrugated board, 125 lb. test. Set up easily. Total of 40 drawers: 32—4" w. x 11½" d. x 4½" h. Sevenshelf steel rack is 12" deep x 36" wide x 40" high. Shipped KD. Easy assembly. 548Z0240 Shpg. wt. 37 lbs...Each 27.44

STEEL STORAGE SHELVES

- Heavy-Duty 22-gauge Shelves
- Adjustable
- 450 Lbs. Test
- Gray Baked Enamel Finish



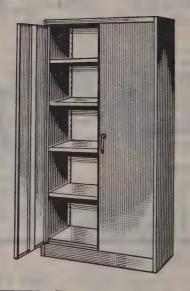
Each of the six shelves holds 450 lbs. and can be adjusted on 1" centers without disturbing shelves in adjoining units. Kwik Klip—no nuts, bolts, or special tools required. Shipped KD.

Stock	Mfr's	Shelf	Wt.	EA	CH
No.	Type	Depth	Lbs.	1-9	10-Up
548U2912	2912-6	12"	54	22.28	18.94
548U2918	2918-6	18"	67	28.60	24.31
548U2924	2924-6	24"	74	36.51	32.62
548H0318 S-	18 18" st	elf		Ctn. of	4 15 18

HEAVY-DUTY ALL-STEEL STORAGE CABINETS

- No Special Assembly
- Gray Enamel Finish
- Handles Can Be Locked

MODEL 7000. Full 72" of height provides maximum storage space. All parts are phosphatized prior to gray enamel baking for maximum durability. Four shelves adjust on 1½" increments to meet specific storage needs and accommodate even large size office supplies. Two swing out doors with locking handles discourage pilferage. Built of lifetime steel and finished in mist gray. 36" wide x 18" deep x 72" high. 110 lbs. Shipped K.D. Easy assembly.



NEW!

ALLIED

MODEL 8000 MOBILE TEST TABLE

- Specially Designed for Convenience
- Rugged, Practical and Lightweight
- Attractively Low Priced
- Assembles in Just Minutes

Designed in collaboration with professional electronic technicians. Slanted top supports instruments at a convenient viewing angle. Sturdy casters provide easy mobility. Support arm adjusts for various sizes. Features a 17x19" top. Overall height, 34". Insulated top. Armor board (phenolic plastic coated). 5%" plywood top. Resilient plastic molded edges. Tubular steel arms have 1" dia. Comes partially assembled—complete assembly in 5 minutes without special tools. No complicated diagrams.

707U8000. Shpg. wt. 23 lbs. ... Each 40.25



OPEN SHELF TRUCK



Engineered to support heavy loads with complete ease. Shelves are reversible so they may be used as flat surface. 4 trays. Unit is 42" high. Comes with two 5" rigid, two 5" swivel casters.
548-2436. 0T2436-4. Trays 24x36". 75 lbs.

548-2436. 0T2436-4. Trays 24x36". 75 lbs. **1-9 Ea. 66.29. 10-Up Ea. 54.96 548-2043.** GT2043-4. Trays 20x43". 77 lbs. **1-9 Ea. 68.24 10-Up Ea. 56.56**

SHOP DESK



MODEL 620. Writing surface and storage space for receiving and shipping clerks, watchmen and checkers. Pencil and paper compartments. Sloping top—43" high at front. Drawer size: 24 x 28 x 3½", furnished with lock. Overall size: 34½ w. x 30 l. x 53" h. Finished in gray baked enamel. Shpg. wt., 105 lbs. 548-0620. 1-9 Ea. 69.24 10-Up Ea. 57.40

STEEL WORK BENCHES



Hard 1" pressed wood bench top supports 200 lbs. per sq. ft. Braced, one piece welded 16-gauge legs. Easily assembled. Shipped KD. Shpg. wt., 76 lbs.

No.	Type	Size	EACH
548 U 0 540	UB400	34 x 24 x 48"	27.87
548 U 0 550	UB500	34 x 24 x 60"	34.35
548 U 0 570	UB700	34 x 30 x 60"	46.80
548 U 0 580	UB800	34 x 30 x 72"	52.13

SPECIAL PRICES INCLUDE FLUORESCENT TUBES!

All lamps may be ordered with 3-conductor U-ground plug, in quantities of 6 or more. Specify Stock Number 707-S and indicate "Uground plug." Add \$3.00 per lamp. Allow four weeks for delivery.









FLUORESCENT/INCANDESCENT LAMP

Model 1020 C/O W/B. Combination 9" diameter reflector houses 22-watt Circline fluorescent bulb (included) and up to 75watt incandescent lamp that provides a blend of glare-free illumination. Double-wall reflector is air cooled. Clamps on work area. True balance 45" pantograph arm directs light where desired with light touch, stays in fixed position. Each lamp has separate switch. 2140 lumens output. Gray finish. 115 volts. UL listed. Electrical outlet in base. Shpg. wt. 10 lbs.

707-1020. List 42.00.....1-5.. Each 38.29 6-Up Each 28.77 707-1007. Extra FC8T9 Bulb ... Each 6.25

FLUORESCENT LAMP & MAGNIFIER

magnifying lens

Model 1015 C/O W/B. Fluorescent lamp with distortion-free 5" magnifier lens—wide-ly used for inspection, close work and miniature component assembly. 3-diopter lens produces 2-to-1 magnification at 12". Spring-balanced twin pantographic arms with 45" reach. Swivels full 360°. Uses 22watt Circline fluorescent tube (included) and puts out 950 lumens. Electrical outlet in base for small appliance plug-in. Includes "C" mounting clamp. Gray finish. 6' cord. UL Listed. Shpg. wt. 10 lbs.

707-1015. List 57.95.....1-5.. Each 48.46 6-Up Each 36.37 707-1007. Extra FC8T9 Bulb ... Each 6.25

WIDE-ANGLE FLUORESCENT LAMP

Model 1005 C/O W/B. Two-tube fluorescent lamp clamps on anywhere at home, in the office, or on the drafting table. Spring bal-anced arms stay put. Has full 45" reach, swivels 360° to put the light where you want it. Baked enamel gray finish. Two T8-15 watt fluorescent tubes are included, providing output of 1740 lumens. Sturdy "C" mounting clamp; 6-ft. cord. Exclusive electrical outlet in base lets you plug in small appliances right at the desk. UL Listed. 120 VAC. Shpg. wt. 10 lbs.

707-1005. List 42.90.....1-5..Each 38.29 6-Up Each 28.77 707-1006. Extra T-18 Bulb ... Each 2.50

FLUORESCENT MAGNIFIER

Model 1050. Provides distortion-free magnifica-tion and cool fluorescent light. Large 5" lens with 13" focus for close, detail work. Arms extend to 45"; spring balanced for easy positioning. All-metal; with "C" mounting clamp. 22-watt Circline fluorescent bulb (included) gives 950 lumens. Shpg. wt. 10 lbs.

707-1050. List 48.95.......1-5.. Each 40.15 6-UpEach 30.19 707-1007. Extra FC8T9 Bulb.....Each 6.25

ALL-PURPOSE ADJUSTABLE LAMP

Model 1000. Low-cost lamp is perfect for the service bench, desk, sewing table. Raises, lowers and turns at the slightest pressure of the hand. Spring-controlled for steady positioning. Arms extend to 45". Shade is vented for rapid heat dissipation. Gray finish; "C" mounting clamp. Uses 75-watt incandescent bulb to give 1190 lumens. Shpg. wt. 5 lbs.

707-1000. List 20.55......1-5. Each 17.89 6-Up Each 13.45

EXTREMELY FLEXIBLE GOOSENECK LAMP

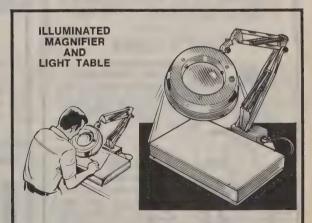
Model 1030. Lamp shade rotates on joint to direct light where it does the most good. Gooseneck extends over 30° circle. Perfect for assembly line or bench work. Uses 60 to 100-watt bulb. 75-watt incandescent bulb equals 1190 lumens output. On-off switch on top of vented shade. All metal; gray finish. With "C" clamp. 120 V, AC/DC. Shpg. wt. 5 lbs.

707-1030. List 13.20......1-5. Each 12.63 6-UpEach 8.70









Model 1060. Fast focusing and flexible, for ultraclear and precise examination of X-ray and photo negatives; or for shadow-free viewing of small parts. Switch turns on either top or bottom light, or both. Has 5" 3-diopter glass lens, illuminated by 22watt circular and 14-watt straight fluorescent tubes.
Panoramic vision; adjustable viewing angle. Viewing area, 9½-15½". With bulbs. Shpg. wt. 5 lbs.
707-1060. 1-4 Each 99.50
5-Up Each 72.75

707-1070. Light Table Only. With bulb. 15½"x16¼". 1-4 Each 39.95

5-Up Each 27.20

Lamps, Lights, Ultrasonic Cleaners, Label Maker

HI-INTENSITY MINIATURE LAMPS "AIM" THE LIGHT WHERE YOU NEED IT



Magnetic Base



Lamp/Magnifier

A MAGNETIC BASE UTILITY LAMP

MODEL 6480M. As above, but with base plate and two mounting holes for permanent mounting on machines, etc. 564-6481. Shpg. wt. 3 lbs. ... Each 28.94

B HI-INTENSITY LAMP/MAGNIFIER

MODEL 7175. Features $2\frac{1}{2}$ " magnifier with 7" focal length for close detail work. Magnifier arm swivels vertically and mag-Magnifier arm swivels vertically and magnifier rotates on its axis: Independent movement of lamp head and magnifier. Hi-Lo switch for 500 or 250 foot-candles. Measures 2½x2½x10" when folded. All metal; nylon feet. With one 6-volt #1133 bulb. Built-in step-down transformer. For 110-120 volts, 60 Hz AC. Lens Power: 2X. 564-7175. Shpg. wt. 3 lbs. Each 37.94 MODEL 7174. As above, but with $2\frac{1}{2}$ " diameter magnifier. Lens Power: 5X. 564-7174. Shpg. wt. 3 lbs. Each 39.94

HI-INTENSITY LAMP/41/2" MAGNIFIER

MODEL 7176. As above, but with big 4½" diameter lens. Equivalent to 200 watts in high range. With one #1133 6-volt bulb. For 110-120 volts, 60 Hz AC. 564-7176. Shpg. wt. 3 lbs. Each 41.94

D "PRO" HI-INTENSITY LAMP MODEL 5900. Professional lamp offers the MODEL 5900. Professional lamp offers the ultimate in intensity, color, temperature and mechanical positioning. Five intensities—up to 7000 foot-candles. Plug-in lamp arm swivels 360° vertically and horizontally. AC convenience outlet. All-metal with neutral wrinkle finish; non-scratch nylon feet. Safe, cool low voltage operation. Built-in transformer. With one #1133 bulb. 110-120 V, 60 Hz AC. 564-5900. Shpg. wt. 3 lbs. Each 69.50

Cord and Plug Use On Desk or C MAGNETIC BASE LAMP Mount MODEL 6490. For factory, shop, field. 12" flexible arm twists, turns to virtually any position. Magnetic base; rear hook for hanging to non-magnetic surfaces. Illumination equals 100 W. End-of-cord transformer; #93 buib. 564-6490. Shpg. wt. 2 lbs. A. Jan. Each 27.94 on Wall MODEL 5979 SUBMINIATURE HI-INTENSITY LAMP. Three #55 6-V bulbs. 105-130 VAC. 564-5979. Shpg. wt. 2 lbs. Each 18.94

E ENGINEER'S LAMP

All with 3-wire

Each 34.94

ULTRASONIC CLEANERS PROVIDE PENETRATING CLEANING ACTION

- Makes Jewelry and Coins Sparkle Like New
- Clean Components and Small Instruments

Scrubs all types of intricate articles. Cleaners generate ultrasonic high-frequency waves which separate clinging dirt from surfaces without physical contact which may cause damage to delicate parts. Clean inaccessible places impossible to clean through any other method. For removing dirt, grease, and other substances from components, miniature mechanisms, and small instruments. Clean jewelry, dentures and coins. Ultrasonic principle provides quick and thorough cleaning. For continuous use at home or in production lines and labs. Completely transistorized. 80 kilohertz nominal frequency. No tuning required. For 115 volts, 50/60 Hz AC input.

MODEL 77 CLEANER

- 1/4-pint Capacity
- All Metal Construction

Has stainless steel cleaning tank that is $2^1 A''$ in diameter and $1^1 / 2''$ deep. Includes jewelry brush, tweezers, cleansers. Overall size, 3'' dia. x 4'' high. Shpp. wt. $1^1 / 2$ lbs. 550-1010. 1-4. Each 30.50 5-Up. Each 27.50

MODEL 250 CLEANER



• 1-pint Capacity

• Square Cleaning Tank

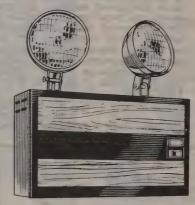
Tank is 3½x3½x2½x2 dep. Has 40 watts RF input. Overall size, 6 x 5 x 4½ high. 3-wire UL line cord. 2¼ ibs. 550-1250. 1-4 ... Each 55.60 5-Up ... Each 51.60

MODEL 450 CLEANER

- 1-quart Capacity
- Stainless Steel Tank

Large tank, 3½" x 8" x 2½", provides room for components, jewelry, gems: 80 watts RF input. Console size, 8½ x7½ x4" high. Wt. 4 lbs. 550-0450. 1-4 ... Each 85.50 5-Up.

EMERGENCY LIGHTS FOR OFFICE, SHOP OR FACTORY



Model 8122

- Dependable, Maintenance-Free Unit
- 12 Volt Battery with Charger and **Switching Circuit**

DECORATOR-STYLED EMERGENCY LIGHT

RECHARGEABLE AUXILIARY POWER FAILURE LIGHT

MODEL 3062. Assures instantaneous, automatic lighting during power failure. Plugs into any unswitched 120 VAC single-phase outlet. Rechargeable wet cell battery operates at 30 amps/hr. Solid state charging circuit adjusts automatically to proper charge required, eliminating battery damage. Two 5" sealed beam heads illuminate up to 10,000 sq. ft. for 33/4 hours. Has test switch, power supply light, charge light. Gray baked enamel finish. 15½ x 63/4 x 173/4".

724X3062. Type A. Wt. 36 lbs. Each 189.95

MARK VI DUAL-TRACK LABEL MAKER



Horizontal, Vertical & Script Wheels

The Mark VI Dual-Track Label Maker is a quick

VINYL LABELING TAPE



144" Rolls of 3/8" Tape Lots of 12 Assorted Rolls

3/8" Tape

1-5 Rolls....Each .99 6-11 Rolls...Each .89 12-Up Rolls ..Each .79

Stock No.	Type No.	Color
910-2082 910-2085 910-2087 910-2090 910-2092	64-532 64-533 64-534 64-536 64-540	Red Blue Green

Warning Units, Sensors and Security Devices

SECURITY DEVICES

INDEX TO AUDIO AND HOBBY SECTION

	INDEX
Allied	Fanon
Cassettes & Tape. 344, 345	CB Mobile Transceiver, 331
Argos	Intercom Systems 325, 331
PA Systems338	PA Amp. & Systems 329, 331
Atlas	Radio Pocket Page 331
Mike Accessories 338	Magnitron
PA Horns & Speakers332	Speaker & Transformer 335
Audio Announcer	Mallory
Automatic Tape Equip346	Audible Warning319
Bogen	Nortronics
Intercoms324	Tape Heads344
PA Amps and Systems329	Pacific Plantronics
PA Speakers332	Headsets341
David Clark	PLC Electronics
Headsets and Access340	Security System319

Radio Shack	
Calculators	322
CB Equipment	339
Dwell Tachometer	321
Educational Kits 322,	323
Headset Radios	338
Intercom Systems	327
Mikes, Accessories 336-	-338
Microscope	321
PA Equipment328,	330
Radios342,	343
Recorders &	
Access342,	344
Speakers & Baffles. 334,	335
Security Systems319	-321

HOITO			
Stereo Equ	ipment	.328,	330
Telephone	Access	ories.	327
Transforme	rs, PA		.335
Tune Up K	(its		323
VHF Scann	ing Mor	nitors.	330
Robins			
Recording	Accesso	ories.	346
Sams			
Books			346
Scotch			
Recording	Tape		344
Shure			
Mikes & T	ransform	ners.	337
Soundolier			
Baffles & S	Speakers	B	335

Superex
* Headsets340
Tab
Books347
Telepro
Tape Cartridges344
Telex
Headsets340
University
PA Equipment 331, 332
Utah
Baffles & Speakers333, 334

COMPLETE COMMERCIAL SECURITY SYSTEM

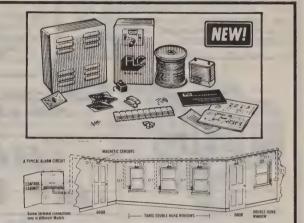
Everything Needed for Entire System in One Package

Use to protect a sophisticated retail store or small factory—everything in between. Tamper resistant all-steel outdoor beil assembly. AC/DC operation. Automatic switchover to standby reserve power if electrical power failure. Installation simplified—plug-in power supply converts 110 VAC to low voltage AC at the wall outlet. 10 sets of magnetic sensors protect 10 single openings or combination of double hung windows and 2 standard doors, etc. If more than 10 magnetic sensors needed, see accessory list below. 2 emergency sensors incl. Exit and entry time delay permits keyless operation—no part of system is exposed to outside except bell assembly. Time delay has indicator light to remind owner of 30 seconds (adjust. 5 to 90 seconds) to turn system off before alarm rings. Circuit/battery test standard. Complete package includes: alarm control cabinet, indoor/outdoor bell, 500 ft. white wire, one 6 VDC battery, one plug-in AC power supply, two emergency panic

buttons, ten sets magnetic sensors, one indicator light, 3 warning decals, mounting hardware, one year warranty, 16-page instruction manual. 673-0001. Complete System.......................210.45

ACCESSORIES

673-0010. 10" Outdoor Bell in Cabinet/Relay. 673-0010. 10" Outdoor Bell in Cabinet/Relay.
Bat. Incl. 23 lbs.
1-4......Ea. 51.75 5-Up.....Ea. 43.50
673-0012. Electronic Indoor/Outdoor Siren Relay. Bat. incl. 12 VDC. 9 lbs.
1-5.....Ea. 56.78 5-Up.....Ea. 47.60
673-0014. Spotter Flashing Alarm Light. 6 VDC bat. incl. 1 lb.
1-4.....Ea. 41.75 5-Up.....Ea. 35.00 673-0016. Closed Circuit Vibration Sensor. Pkg. 10. 1 lb. 1-4.....Ea. 6.85 5-Up......Ea. 4.59 673-0018. Closed Circuit Magnetic Sensors. Pkg. 20. 3 lbs.Ea. 4.40 5-Up..... Ea. 3.25



MINI-SONALERT ELECTRONIC AUDIBLE SIGNAL

MINI-SONAL ERT DIMENSIONS .32- .62

Extremely compact electronic signal produces penetrating sound by purely electronic means—no moving parts. Circuitry solid-state for peak efficiency; lowest current requirements; highest reliability. No arcing; no RF noise; no mechanical wear. Lightweight units consume less current than normal indicator light; can be used to complement visual signals. Positive audible warnings instantly given in fault alarms for computers, fire signals, instruments, medical electronics and communications equipment, appliances, telephone signals and various protective equipment. Temp. range: —30° to +65°C. Frequency: 3500 Hz (±500 Hz). Polarized design. Size: 1.46" dia. x .62" long. Easily mounts on chassis or panel using either a metal or bakelite mounting wafer.

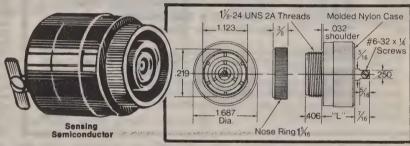
		Nominal	Operating	Max.	Min.		EA	CH	
Stock No.	Mfr's Type	Operating Voltage	Voltage	Current @ Nom. V	Sound	1-	10- 24	25- 49	50 Up
854-6540 854-6550	SC1.5 SC12	1.5 V 12.0 V	1-4 V 8-15 V	4 mA 14 mA	60 dB 70 dB	7.35 7.35	5.88 5.88	4.17 4.17	3.64 3.64

SCIENCE FAIR INTRUSION **DETECTOR KIT**

Enjoy a feeling of security at home with this unusual burglar alarm that provides two types of alarm. You can set it for either a loud alarm, or for a silent blinking light warning. A magnetic contact switch attaches to door or window. Has a red dome lamp and ivory color base. Easy nosolder assembly—you can put it together in one evening. Requires one 9-volt cell. 910-5475. Type 28-17310.95



MINIATURE SONALERT SOLID-STATE AUDIBLE WARNING DEVICE



Miniature audible-signal warning device emits penetrating signal at minimum current. Solid-state circuit—no arcing—no RF noise, no mechanical wear, lowest failure rate with maximum efficiency. Compact, lightweight, versatile—consumes less current than normal indicator light. Ideal for use as safety device. Alerts to mechanical malfunctions in cars, communications, computers, fire signals, appliances, non-use of seat belts, medical electronics, etc. Temp. range: —20° to $+65^{\circ}\text{C}$. Self-extinguishing black nylon case, 1.687% dia. (length in table). *Types that emit pulsing sound output. †Model SC628W is a warbler unit, for use with SC628 or SC628H. Av. shpg. wt. 8 oz.

		Sound		Oper.	Sound			EA	CH	
Stock No.	Mfr's Type	Freq. (Hz)	Operating Volts	Curr. (mA)	Level (dB)	Lgth. In.	1-9	10- 24	25- 49	50- Up
854-6502 854-6506 854-6508 854-6504	SC628 SC628H SC628P SC628A	2900 4500 2900* 2900	6-28 DC 6-28 DC 6-28 DC 6-28 AC/DC	3-14 3-14 3-14 3-14	68-80 68-80 68-80	.812 .812 1.375 1.375	8.62 9.90 15.72 13.87	6.90 7.92 12.58 11.10	4.89 5.62 8.93 7.88	4.27 4.91 7.79 6.88
854-6500 854-6525	SC110 SC110P	2900	30-110 AC/DC 30-110 AC/DC	3-14	68-80	1.375	13.87	11.10	7.88	6.88
854-6530	SC628W†	2900°	6-28 DC	3-14	68-80	1.375	17.05	13.64	9.68	8.45

ARCHER PHOTO-ELECTRIC RELAY WARNING SYSTEM



 Ideal Burglar Alarm System May Be Used for Counting

Archer photo-electric relay warning system alerts you to any entry in its path. Can be used as an intrusion alarm or counter system. Photocell receiver has sensitivity control to adjust for ambient light level to eliminate counterfeit responses. Switch



SECURITY

Safety and Security Devices Through Electronics



NEW! 8" ALARM BELL

Great for Burglar & Fire **Systems**

Ideal underdome bell for use in houses. schools, boats or cars. Produces a loud, shrill noise. Weatherproof. Operates on 6/12 VDC. Mtg. bracket for wall or bell box. 8" dia. 910-5295. Type 275-498..... Each 12.95

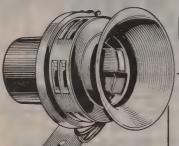


SPACE AGE ALERT & ALARM-YELPING "WHOOP-WHOOP" SOUNDS FOR BLOCKS

NEW!

- Ideal for Home, Boat or Car
- For 6 or 12 VDC Power
- Weatherproof and Waterproof

Produces "yelping" or "whooping" sound that can be heard for blocks. Rousing, repetitive "whoop-whoop" is similar to that used in police and fire vehicles. Ideal for fire alerts, alarms in schools, businesses, industrial plants. Can be used all seasons—indoors and outdoors. It's weatherproof and waterproof. Perfect for boats, cars, homes. Attaches to swivel steel mtg. base. Mounting is quick and easy. Draws less than 750 mA—low power drain. Of spun-aluminum construction. Complete with mtg. hardware and screws. Size: 6x5½ x5½".



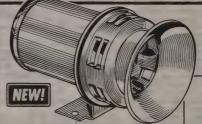
NEW! COMPLETE SIREN ALARM KIT



LOW COST AUTO ALARM SYSTEM

- Gives 24 Hour Protection for Any Vehicle
- Complete Kit is Easy to Install
- Loud Siren Foils Would-be Thieves

Bring security and protection to any vehicle you own! Loud siren sounds if hood, trunk or doors are tampered with—scares away thieves or van-dals! Provides night and day deterrent. Six switches, two keys, lock, wire, and all hardware are included. Easy to install. Spun-aluminum construction. For 12-VDC negative ground vehicles only. Low-cost protection for car, truck, or boat. (May be prohibited by law in some states.)



- Penetrating Siren is Heard for Blocks
- · For Residential, Commercial, **Industrial Alarms**

Build or expand your present alarm system. Easy-to-install siren is great for fire or burglary alarms. Or use as a sound warning device. Die-cast and spunaluminum/steel construction. Encased 10,000-rpm motor operates from 110-120 VAC, 60 Hz, at 1.35 amps. Incl. mtg. bracket with pre-punched screw holes. Size, including bracket, 8½ x5x 5½". UL listed.

LOW COST INDOOR/OUTDOOR 120 VOLT SIREN







Plant



910-5290. Type 275-497..21.95



NEW! DOOR CHAIN **BURGLAR ALARM**

Type 275-499. Door alarm and chain bracket mount in minutes. Should anyone try to force chained door open, alarm will emit loud blast. Installs with screwdriver. Uses 2 "AA"



BATTERY-OPERATED BURGLAR ALARM

Type 275-494. Attaches to door or window for low-cost protection. Goes off when door or window is opened. Comes with screws and adhesive backing for temporary or permanent setup. Requires 2 "AA"

910-5275.....Each 2.19 Type 23-468. "AA" cells. 910-5129.....Each .15



NEW!

For Alarm

117 VAC

BELL

Type 273-020. Another winner in the whole new line of security systems we're offering. 117 VAC bell emits a loud, clear ring that overcomes hi-level background noise. Metal base, 4x2". .Each 5.95



BATTERY-OPERATED BUZZERS

Connect to Most Alarm Systems

Gives off loud warning. 910-5225. Type 273-004 1½-3V Model EEach .99 910-5240. Type 273-049 Each 1.89 910-5245. Type 273-051

12V Model Each 1.89



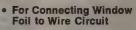
NEW!

WINDOW FOIL

Type 275-502. Easy to apply adhesive strip is ideal for most alarm systems. Connects to alarm system with block connectors (sold at right). The simple, inexpensive way to rig all your windows against tampering. Window foil sets off alarm at forced entry. Silver adhesive strip. Roll of 150 feet by %6". 910-5305.... Each Roll 2.89



FOIL BLOCK CONNECTORS



· Easy to Install

Type 275-504. Self-sticking foil blocks allow window foil (sold at left) to be connected to wire cir-cuit. Single screw connection. Re-quires no soldering. 910-5310......Each 1.99

320 • ALLIED

"POWERHORN-3" SECURITY SYSTEM

- Installs In Minutes Battery-Powered -Works Even When AC Fails



Delayed Alarm—Exit & Re-Enter Without Sounding



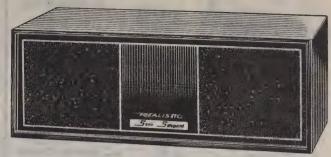
Forced Entry
—Sounds
Alarm when Door or Window is Opened

Type 275-487. Use in home, office. factory. Emits loud blasting noise that foils would-be intruders. Add as many magnetic "contact switches" as you need (in series) for complete protection. Alarm box mounts on wall with screws or pressure-sensitive tape (included). Molded tan enclosure, 3%x 9%s×1½". With wire and magnetic contact switch.

910-5260 910-5116 Each .21 Type 278-559. 100' Extension Wice 910-5325 ... Switch. Add as many as needed. 910-5280 Each 1.99

1 SEALISTIE

ELECTRONIC "SONIC SAFEGUARD" BEAM



Detects Any Motion that Breaks Beam

No Installation-Just Aim at **Desired Area**

Protects Cone-Shaped Area 25' Long & 120° Wide

Invisible ultrasonic beam detects any motion that breaks beamsounds alarm blast from built-in alarm.... Or you can connect system to an external alarm. Alarm sounds immediately, or with 20-second delay so you can leave and re-enter without setting off false alarm. Gain control varies protected area. 11x4x4".

910-5285. Type 275-496. 910-5116. Type 23-467. "C" Cells. Uses 4 Each 39.95 910-0049. Type 14-854. AC Adapter Each 5.95



Perfect for Camper, Travel Trailer or Van! The only choice for people "on the go"! The Archer Camper Antenna brings in color, black & white and FM reception that's as good as "at home"! Folds compactly, in minutes, for storage or travel. Specially designed aluminum alloy construction stands up to rough weather; snap-lock elements stay in place even in high wind. One lead-in for all channels is held securely with the wall-through insulator (included!) Low-loss tuner coil locks in available signals-really improves reception!

117 VAC BUZZER

NEW!

395

- Plastic Housing
- For Alarm Systems or Signalling

Customize your alarm system with this easy-to-install 117 VAC Buzzer. Or use as time signal, door buzzer. Ideal for out-of-the-way wall mounting. Convenient screw terminal connections allow easy hookup. Use with any 117 VAC alarm system, or signalling system.



Has two ocular, three subjective lenses. Battery-powered illumination. Hand magnifier, tweezers, dissecting needles, spatula, 2 prepared slides, 5 blank slides, 5 slide covers, labels, chemicals. 2 lbs. 910-5508. Type 28-208 Now 9.95 910-5107. 23-453 "AA" Batt.. Pk. 4/1.19

SECURITY DOOR SCOPE



Quickly Installs in 1/2" Dia. Hole

Don't play guessing games with your life. Know whom you're letting in. Protect yourself for pennies-only 1.59. Security door scope gives you a wide-angle view of who's there. You can look through door, but no one can look in. Quickly installs in doors 1" to 1¾" thick. Needs 1/2" diameter hole. Door scope is weatherproof and tamper proof.

910-5312. Type 275-505..... Each 1.59



Adjust your carburetor for best efficiency and gas economy. Set point-gap with distributor cap off and engine cranking. Set points on "Window" distributors with engine running. Pinpoint defective spark plugs. RPM scale, 0–30, 8-cylinder dwell, 5–45°; 6-cylinder dwell, 20–40°. Size: 6½ x3¾ x2″. Shpg. wt. 2 lbs. 910-4730. Type 22-1630......16.95

EDUCATIONAL

Calculators and Educational Kits



5 FUNCTION 10 DIGIT CALCULATOR

- · Battery/AC
- Memory
- Automatic Summing
- Includes Case and AC Adapter/Charger

Model EC-400. All of the most used math functions right at your fingertips-addition, subtraction, multiplication, division, square root, reciprocals and percentage. Four key memory for number storage with future recall. Auto constant for multiplying and dividing. Auto repeat for adding and subtracting. Change sign (+/-) for mixed calculations, floating decimal, leading zero suppression. Tilted LED display for optimum viewing angle. Auto shut-off after 25 seconds for extended battery life. 120 VAC or built-in nickel cadmium power cell. One year guarantee. 3¼ x 5¾ x 1½″. 910-5762. Type 65-630.......Each 99.95



"SLIDE RULE" CALCULATOR

- · Highly Versatile
 - Includes Case and AC Adapter/Charger

Model EC-425. 8 digit calculator does square roots, reciprocals, squares, chain and mixed calculations. Overflow automatically converts to scientific notation. Floating decimal, change sign key, clear and clear entry keys, minus sign, over-flow and error indicators. AC or built-in battery. 1½ x 6½ x 3½".

910-5764. Type 65-632..... Each 79.95



"DYNAMIC CONSTANT" CALCULATOR



- 8 Digit Display
- Includes Case and AC Adapter/Charger

Model EC-350. Constant function stores X or — answer in register separate from memory. To X or — display by the constant, just press the "K" key. Also features memory, floating decimal, % key, low battery indicator and 25 second 'battery saver' auto shutoff. 3-Way Power: 120 VAC, rechargeable or regular "AA" cells. One year parts and labor guarantee. 1% x 5% x 3".

910-5760. Type 65-620...........Each 69.95 Model EC-350. Constant function stores X

ELECTRONIC LAB KIT AND SCIENCE FAIR® RADIOS



ELECTRONIC LAB KIT

100-In-1 Project Kit. Build radios, amplifiers, computer circuits—even has plans for strobe light, lie detectors, Cds photometer. Integrated circuit section. 214 p. Instruction and theory manual. Needs no tools or soldering. In case. Requires one 9 V. battery and 2 "AA".

910-7081. Type 28-220 Each 29.95 910-5112. 23-464. 9 V. Battery. Each .49 910-5129. 23-468. "AA" Batt... Each .15



ELECTRIC PROJECT KIT



JR. ELECTRONIC LAB



4-BAND RADIO KIT



CRYSTAL RADIO KIT

Extra-easy to assemble and really low priced! This kit comes complete. Hear your favorite AM broadcasts. Runs on special precision crystal; can't wear out-no tubes or batteries. Shpg. wt.

2 lbs. 910-5507. Type 28-207Each 3.95



TRANSISTOR RADIO KIT



SOLAR BATTERY RADIO KIT



PENCIL SOLDERING IRON

Model 64-2069. Lightweight, Easy to maneuver into tight spots. Breakproof, stay-cool handle. Screw-in tip. UL listed.

910-2069 Each 2.39 910-5960. Type 64-2073. Replacement Tip.... Each .59

Electronic Projects and Science Kits

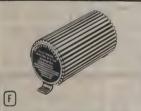




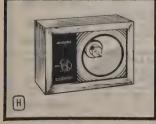












A ELECTRONIC 2-OCTAVE ORGAN KIT

15-note organ kit plays any song in whole notes over a two-octave range. Printed and coded assembly board. Solid-state circuitry. Detailed manual includes pictorals and diagrams. Kit includes tuning control, speaker, batteries, all parts, pre-cut wire and song book. Deluxe fitted hardwood case included. Absolutely no soldering required. Shpg. wt. 4 lbs.

910-5515. Type 28-21512.95

B 3-CHANNEL LIGHT CONTROL/ **COLOR ORGAN KIT**

Brighten up any get-together. Use the built-in color organ—or plug in 3 other lights. Controls up to three light sources. Makes lights and colors dance to your beat. Handles to 900 watts. Solid state circuitry. Easily assembled. Measures 10x 7x6" when finished. Shpg. wt. 5 lbs.

910-5435. Type 28-138......Each 29.95

C METAL LOCATOR KIT

Lets you build and use a top-quality metal detec-Lets you built and use a top-quality metal detec-tor. Locates both ferrous and non-ferrous metals. Has adjustable volume and pitch controls; pitch increases when metal object is nearby. With com-prehensive instruction manual. Requires 9 volt battery (not included). Shpg. wt. 4 lbs.

910-5481. Type 28-181............Each 16.65 910-5112. Type 23-464 9V Battery.....Each .49

D DELUXE METAL LOCATOR KIT

right-fitting, sealed 6½" cIrcular coll. Faraday shield for maximum sensitivity. Built-in 2½" speaker provides audible indication. Easy-to-read meter produces accurate visual indication. Lets you follow floor pipes and other handy uses. Spots metal objects buried up to as much as 6" deep. Lightweight, with 36" collapsible handle. Operates on two 9-volt batteries (not included). Kit includes all parts. Shpg. wt. 3 lbs.

910-5112. Type 23-464 9V Battery.....Each .49

E ELECTRONIC IGNITION KIT

Deluxe electronic ignition system kit. Capacitive Deluxe electronic ignition system kit. Capacitive discharge system puts more power in your car, cuts maintenance and boosts gas mileage. Develops more spark energy for quicker starts, faster acceleration, more complete combustion. Has in/out switch for instant performance comparisons. Solid-state circuit. Installs with no rewiring. 12 VDC negative ground. Can be easily assembled in one evening. 3x5½xx3½". Shpg. wt. 3 lbs. 910-5585. Type 28-3203...,...........Each 39.95

F ELECTRONIC IGNITION KIT

SCR electronic ignition kit. Electronically-fired spark improves the power and performance of your car. You'll get better gas mileage—longer plug and point life, too. Installs in your car's ignition coil without removing any wires. Great for those long trips. For 6 and 12-volt negative ground systems. Shpg. wt. 1½ lbs.

G AUTOMATIC WINDSHIELD WIPER DELAY CONTROL KIT

Adjusts for wiper sweep once a second to once a min. For any 12-V wiper control. Ends "dry" action in light rain, mist. Installs by clamping 2 wires across wiper control. Prolongs blade life. Easy to assemble. Compact—2 x 4 x 2"—fits under dashboard. Shpg. wt. 1½ lbs.

910-5591. Type 28-4011..................Each 14.95

H ADJUSTABLE STROBE KIT

"Freezes" motion. Adjusts from 60 to 600 beats per minute. Flashing light distorts motion and timing. Makes any room "vibrate" with light to give a flickering old-time movie effect. Features solid-state circuit, xenon strobe bulb, on-off rate control. With handsome wood grain vinyl case, detailed assembly instructions. 10% x 7% x 6". AC. Shpg. wt. 5 lbs.

910-5575. Type 28-3210.....Each 29.95

J 2-WAY PHONE AMPLIFIER KIT

K 2-STATION INTERCOM KIT

Wire-type kit is easy to build and operate. Press "call button" to talk, release to listen. Great for monitoring nursery or sick room. Master unit has volume control. With 66 foot wire, solder, and instructions. Is battery operated (needs 2 9V batteries). Each intercom unit is 3 x 1¾ x 4". Shpg. wt. 2 lbs.

L ELECTRONIC METRONOME KIT

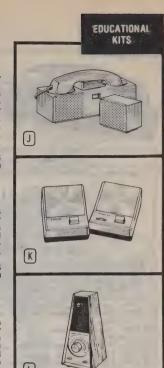
M OPTICS LAB KIT

N DRIVER ALERT RADAR SENTRY KIT

P DIGITAL COMPUTER KIT

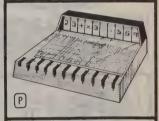
R 147-174 MHz POLICE/FIRE/ CD MONITOR

S 108-135 MHZ AIRCRAFT MONITOR KIT













Intercom and Phone Systems







NEW TSL-X MULTI-CHANNEL PHONES

TQ COMMON-TALK PHONES

Any station talks with any other station, but only one 2-way conversation can be held at a time. Has selective ringing, conference call feature. Total of 7 stations can be used in TQ-6A system, 13 stations in TQ-12A system. Beige finish. Use cable, listed below, with at least three conductors more than number of phones in system. Size, $3\frac{1}{4} \times 3\frac{1}{4} \times 9\frac{1}{4}^n$. Shpg. wt. 4 lbs.

CABLE FOR TSL-X AND TQ PHONES (100-FT. SPOOLS)

No. of Cond.	Lbs./ 100'	Stock No.	Mfr's Type	EACH	No. of Cond.		Stock No.	Mfr's Type	EACH
3 6 12	2 4 5½	768-9149 768-9152 768-9155	832203 832206 832212	6.15 13.90 13.50	15	7	732-2200	8458	24.00

CABLE FOR "IE" INTERCOMS (100-FT. SPOOLS)

732-5045. Type 8740. 2-cond. unshielded. 2 lbs	Each 6.72
768-9149. Type 832203. 3-cond. unshielded. 2 lbs	Each 10.95
732-2099. Type 8449. 9-cond. unshielded. 5 lbs	Each 17.23
768-9155. Type 832212. 12-cond. unshielded. 5½ lbs	Each 24.55
732-5066. Type 8748. 16-cond. unshielded. 7 lbs	Each 29.25
768-8822. Type 722201. 1-cond. vinyl shielded. 1 lb	Each 18.04

SOLID-STATE PLANT INTERCOMS

The perfect intercom systems for intra-office business or plant communications or conferences. Any Master can call all other Masters or any Remote, or Page thru PA system.

ALL MASTER SYSTEM

Use up to seven IE-7 Masters or thirteen IE-13 Masters. One non-private RIE-1 Remote may be substituted in IE-7 system (two RIE-1 units in IE-13 system) for hands-free reply. Any master can call all others or page through PA system, Each has volume control, press-to-talk bar with dictate lock, push-button selector switches. For desk or wall mounting. Beige. Each unit is 4%x6%x7%/m. Masters require 110-120 VAC. Order cable at right, below—use unshielded cable with at IE-4S least one more conductor than number of stations.

SINGLE MASTER-MULTIPLE REMOTE SYSTEM

One IE-7 Master and up to six RIE-1 Remotes (or one IE-13 Master and up to twelve remotes). Master calls one or more stations simultaneously, remotes originate call to master. Press-to-talk bar, privacy switch. 4%x6%x7%6". Use 3-cond. unshielded cable between Master and each Remote.

IE-4S "ANNUNCIATOR" SYSTEM

IE-4 Master takes up to three RIE-1 Remotes (one included). Calls one or more remotes as desired. Remotes originate calls to Master by means of beep-tone and magnetic annunciator that remains visible until cleared by Master. IE-4 Master has volume control, press-to-talk bar, three pushbutton selector switches (each with annunciator), beep-tone call button, clearing button. For desk or wall mounting. Beige. Each unit: 4%x6%x7%ja". For 110-120 VAC. Order cable at right, below—use 2-conductor unshielded cable between Master and each Remote.

PRICES FOR "IE" INTERCOM SYSTEMS

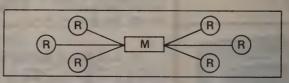
733-0006.	IE-7 Seven-Station Master, 4 lbs	5-UpEach 47.96
733-0007.	IE-13 Thirteen-Station Master, 15 lbs1-4 Each 73.35	5-UpEach 58.68
733-0005.	IE-4S System. 1 master, 1 remote, 8 lbs. 1-4 Each 72.50	5-Up Each 58.00
733-0067.	RIE-1 Remote Station. 3 lbs1-4Each 19.40	5-Up Each 15.52

INTERCOM TERMINOLOGY:

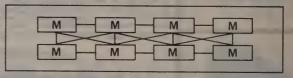
Master Station: Can call any other master or remote station. Non-Selective Remote: Can call only one master. (Determined at time of installation.)

HOW TO CHOOSE AN INTERCOM SYSTEM:

Determine the number of stations needed. Next decide whether you require single master or all master operation. Select your system (IE-7 or IE-13 masters, and RIE-1 remotes) from listings above.



Single Master, Multiple Remotes



All Master System

SOUND POWERED TELEPHONE-TYPE INTERCOM SYSTEMS

- For Factories, Construction Sites, Farm, or Anywhere Power is Lacking ... No Batteries Needed!
- Sound-powered Telephone and Ring Generator

• Up to 12 Phones Can Be Easily Hooked Up



Use these handsets for maintenance-free communications in the plant, on construction sites, on the farm, wherever electrical power is lack-ing. Comparable in size and quality to the finest commercial telephone equipment. No batteries required. Voice power alone generates current for transmission. Sound-powered elements in telephone and ring generator have Ainico permanent magnets for infinite life without loss of strength. Can remain on an indefinite "standby" for emergency service when other facilities fail. Up to 12 telephones can be connected in paral-Up to 12 telephones can be connected in parallel to provide fast communication at low installation cost. SPT-102 handset has 4½-ft. non-coiled cord, SPT-123 and SPT-150 have 4-ft. coiled cord. All handsets supplied less connecting cable (order separately at right). All units constructed of corrosion resistant material for trouble-free experition is easy weather. As these trouble-free operation in any weather. Av. shpg. wt. 11/2 lbs. except B-5446.

Stock No.	Mfr's Type	Fig.	Description	EACH	
				1-4	5-Up
987-4310	SPS-205		Complete two-station system with handset; wall mounting, ready for connection; including two SPT-123, two SPS-1205	91.75	78.00
987-4330	SPT-102	Α	Handset; up to 12 can be paralleled	21.60	17.28
987-4333	SPT-123	Α	Hi-level handset for noisy areas (less clips)	24.19	21.50
987-4336	SPT-150	Α	Same as SPT-123 but with insulated clips	25.10	20.85
987-4323	SPS-1205	В	Wall mount handset holder; self-contained bell	26.55	23.50
987-4306	B-5446	С	Handset hook, for wall or desk-side mounting	2.85	2.28

Solid-State Intercom Systems

AUDIO EQUIPMENT

DELUXE SOLID STATE TWO-CHANNEL WIRELESS INTERCOM SYSTEM

Director Wireless W/S. Consists of two wireless intercom stations—just plug them into common AC outlets and they're ready to operate in the home or office. Stations are portable and can be moved from room to room, even building to building, providing the power lines are common. Two-channel operation lets you add an additional station and selectively contact the station you want, or add two or more stations and have two separate conversations going

at once. Each station has a volume control with on/
off switch and a talk/listen switch with lock position
—ideal for dictating and baby tending. High impact
charcoal brown cabinets with wood grain accents;
for desk or wall mounting. 9½x6¾x3½".

Two-Station System. Shpg. wt. 5 lbs.
790-3000......Each 78.40 4-Up.....Each 74.95
Additional Single Station. Shpg. wt. 2½ lbs.
790-3010......Each 39.25 4-Up.....Each 37.50



EXECUTIVE SERIES HIGH-POWER INTERMIX INTERCOMS

A versatile professional intercom system with considerable intermix capability—permits any combination of up to seven masters and remotes, including paging horns with the Executive 7 Master. Permits up to thirteen stations with the Executive 13 Master. Any remote station may originate calls to its master. Three masters may be called by one selective remote. System has one watt of power for station-to-station use, with four watts of power served for paging into very noisy areas. A higher power paging and a "handsfree" talk back feature are available when the system is connected, through the PR-16 relay to a separate PA system.

the PR-16 relay to a separate PA system.

Both masters and remotes have a privacy switch which gives "hands-free" reply and eliminates eavesdropping. Masters also have a monitor light which indicates when they are being called (or listened in on) and a busy light which indicates that the called station is busy. All masters include a U.L. listed 110 VAC power supply and a terminal box to facilitate installation. Designed with a balanced line to eliminate cross-talk and reduce audio line loss. Attractive high impact charcoal brown cabinets with wood grain accents and aluminum trim. Cable requirements are one pair of wires plus one pair for every station in the total system. Also add one shielded wire between each remote and its Master(s). Dimensions and shipping weights for the separate system components are supplied below.

the separate system components are supplied below.

Model Executive 7 Master Seven Station. Size: 9½x6¾x3½". 2½ lbs. 790-4000. Each 79.35 4-Up. Each 75.40

Model Executive 13 Master Thirteen Station. Size: 9½x6¾x3½". 2½ lbs. 790-4001. Each 98.05 4-Up. Each 91.30

Model Executive 1 Remote . Single Station. Size: 6¾x6¾x3½". 2 lbs. 790-4002. Each 19.20 4-Up. Each 18.25

Model Executive Selective Remote Station. Size: 6¾x6¾x3½". 2 lbs. 790-4003. Each 25.00 4-Up. Each 23.75

Model PR-16 Paging Relay. Shpg. wt. 1 lb. 790-4004. Each 23.75

Model HDA-5-8-Horn. 7½ watts, 8 ohms, swivel base. 6" bell. 3½ lbs. 790-4005. Each 15.45 4-Up. Each 14.70

DIRECTOR SERIES-MASTER-TO-MASTER OR MASTER-TO-REMOTE SYSTEM

All master system uses up to seven Director 7's or thirteen Director 13's and permits any station to selectively communicate with any other station or group of stations. Up to three simultaneous conversations may take place in a Director 7 system (six in a Director 13). Conferences between several stations can also be held. One station selector switch on model Director 13' (two on Director 13) may be used to connect the master to a public address system with model PR-15 paging/talk back relay.

Master to remote system permits one Director 7 master to converse with up to six Director 1 remotes (twelve remotes with Director 13 master). Master can selectively speak with any one or more remotes; however, remotes cannot speak to each other. Remotes reply to the master "hands-free" and can operate either private or non-private by use of privacy switch. Full 1-watt power allows stations to be up to 500 feet apart. Masters have volume control on/off switch, talk/lister switch with lock, U.L. Listed 110-120 VAC power supply. Designer styled high impact case may be used on desk or wall mounted. 9½x6¾x3½". Brown with wood accents, aluminum trim.

Cable requirements: use one more conductor than total number of stations in the system. Add one shielded wire for each PR-15 relay.

in the system. Add one shielded wire for each PR-15 relay.

Model Director 7 Master Seven Station. Size: 9½x6¾x3½". 2½ lbs. 790-4010. Each 46.70 4-Up. Each 42.95

Model Director 13 Master Thirteen Station. 9½x6¾x3½". 2½ lbs. 790-4011. Each 57.65 4-Up. Each 53.00

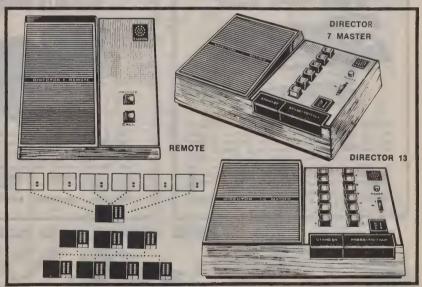
Model Director 1 Remote. Indoor Station. 6¾x6¾x3½". 2 lbs. 790-4012. Each 14.20 4-Up. Each 13.10

Model Director D Outdoor Remote. Use with either master. Wt. 2 lbs. 790-4017. Each 10.50 4-Up. Each 9.65

Model PR-15 Paging/Talk Back Relay. Shpg. wt. 1 lb. Fach 9.65

Model HDA-5-8 Horn. 7½ watts, 8 ohms, swivel base. 6" bell. 3½ lbs. 790-4005. Each 15.45 4-Up. Each 14.70

REMOTE **EXECUTIVE 7 MASTER** WITH SELECTIVE REMOTE SELECTIVE REMOTE WITH HORNS



DELUXE EXPANDABLE TWO-STATION INTERCOM SYSTEM

- Includes Talk/Lock Position Two Station Selector Switches Privacy and Non-Privacy Switch

System includes master, Indoor remote and 50-ft. wire. When Director D Outdoor Remote is added, remotes operate non-private only. High impact charcoal brown cabinets with wood grain accents, brush aluminum trim; can be desk or wall mount. Master 9½x634x3½". Model Director Master 3S System. Indoor or outdoor remote can be added. Wt. 3 lbs. 790-4015... Each 45.00 4-Up... Each 41.50 Model Director 3 Remote ... Indoor Station. 634x634x3¼". Shpg. wt. 2 lbs. 790-4016... Each 13.80 Model Director D Outdoor Remote. 7x3½x2". Shpg. wt. 1½ lbs. 790-4017... Each 11.30 4-Up... Each 9.65 Model HDA-5-8 Horn. 7½ watts, 8 ohms, swivel base. 6" bell. Shpg. wt. 3½ lbs. 790-4005... Each 15.45 4-Up... Each 14.70



MASTER-TO-MASTER SYSTEM

- Three Masters—Two 50-ft. Cables
 Easy, Instant Plug-in Installation
 Use Masters Up to 500 ft. Apart

No elaborate wiring—plug-in connectors for "instant installation." Anyone can hook up entire system in minutes. Fully selective; any station can speak to one or more stations. Permits conference calls. Two separate conversations may proceed simultaneously. Powerful IC circuitry allows distance of 500 ft. between first and last master station. Press-to-talk switch has lock position. Pilot light. Brown/wood grain accents. Model IN-603. Starter system includes three Masters (7x3½x2"), two 50-ft. cables. Wt. 3¾ lbs. 790-4020....Each 96.80 4-Up....Each 89.95 Model IN-600. Additional Master Station with 50-ft. or plug-in cable. Shpg. wt. 2 lbs. 790-4021....Each 38.32 4-Up....Each 35.30 Model 6C-50. Extra 50-ft. cable with plugs. 2½ lbs. 790-4022.... Each 11.75 4-Up.... Each 10.65



Intercom Paging System and Telephone Accessories

TALK-BACK PAGING SYSTEM WITH INTERCOM CAPABILITY

- Ideal for Warehouses, Plants, Marinas, Lumber Yards
- Call Master-to-Master or Master-to-Paging Speakers
- Remote Switches Allow Paging Horns to Call Masters
- Master has Both Incoming and Outgoing Volume Controls

Type AP-10S. Rugged, reliable, versatile. 10-call master station can be intermixed with subs and other masters—up to a total of 11. Powerful 10 watt RMS master with 8 ohms output. Advanced solid-state circuitry reduces background noise, yet allows clear voice communications through paging speakers. Electronic delay eliminates echo. With lamp annunciation and tone call plus separate transmitting and receiving volume controls. Simple wiring. Write for free installation instructions. Can be connected to 8-ohm talkback paging horns and speakers (listed in audio section).

607-0010. 10-Call MasterEach 275.0	0
Type AS-3. 1-Call Sub Station calls 1 master.	
607-0020 Each 17.5	0
Type AS-3W. 2-Call Sub Station calls 2 masters.	
607-0030 Each 20.0	0
TYPE NP-A. Remote Call Switch allows paging horns to call masters.	
607-0040	7
TYPE NP-AN. Memory Call Switch.	



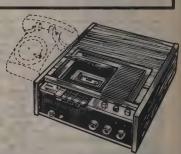
INEXPENSIVE TELEPHONE VALET

Model CTA-4100. An automatic answering and recording device that's the right price, the right quality, the right one for you. Your own private telephone valet gives your caller your pre-recorded message and records your caller's answer. Picks up incoming signals without handset being lifted. Cartridge tape recorder allows 60 seconds for outgoing and incoming messages. Automatically hangs up and is ready to answer the next call. Comes with message cartridge tape, mike, patch cord, and induction cradle. Size: 3%x8/½x10/m²/. For 117 VAC, 50/60 Hz. UL approved. Shpg. wt. 8 lbs. 762-0141. 1-3.....Each 99.95



ANSWER/RECORDER

CTA-4400T. Answers phone. Gives your pre-recorded message (to 30 sec.) on endless loop tape. Records caller's message on built-in cassette recorder. message on built-in cassette recorder. Voice-activated recorder may be used separately. Tone, volume controls. Function selector switch (message record, message confirm, valet, cassette). Installs in minutes; no rewiring. Walnut cabinet. 3% x10% x12% "With cassette, built-in mike. AC. Wt. 9 lbs. 762-0144. Ea. 239.95 4-Up. Ea. 215.95



3-WAY PHONE VALET



CTA-4450. Valet answers phone, gives message, records caller's message, lets you monitor call while it's answering. Solid state. Installs easily—no line cutting. With 23-sec. loop cartridge for your message. Built-in cassette recorder records to 90 sec. of caller's message. "Beep" tone. Tone and volume controls. 3 remote jacks. AC. With earphone, mike, C-60 cassette, phone cradle, phone connector cord.

762-0150 Each 289.95

DIALER/AMPLIFIER



CAD-8. Press a button and the CAD-8 will dial your call automatically. Memorizes to 26 different numbers. Dial a number once and the CAD-8 magnetically records it for future dialing. Manual switch for regular dialing, call button for automatic. Change numbers anytime. Built-in voice amp. boosts sound. AC. Wt. 8 lbs.

762-0108....Each 99.95 4-Up....Each 89.95

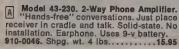
CASSETTE RECORDER/DICTATOR



CDM-10. Accepts dictation using standard cassette, cords up to 2 hours. Plays back through earphone or speaker for transcribing. Foot pedal starts and stops tape, reverses to repeat the last 7 seconds of dictation. Pop-up cassette ejector, record level indicator, tone control. With remote control mike, steno earphone, foot pedal. Battery/ AC. Wt. 2 lbs.

AC. Wt. 2 lbs. 762-0110....Each 164.50 4-Up....Each 131.60

PHONE AMPLIFIER, JACKS, PLUGS AND TEST LEADS



279-1507. Phone wall jack fits std. wall conduit box. 2, 3, 4-wire system.

Type 279-366. Phone Plug. 4-conductor plug fits jack 279-367. 910-7036. 1/4 lb......1.29



STANDARD 1/4" PHONE M PLUGS

Two-conductor and three-conductor standard ¼" phone plugs designed to highest quality. Available in black bakelite or shielded.

2-CONDUCTOR

3-CONDUCTOR
910-6570. Type 274-1536. 4 oz.....1.39
Set of 2. Shielded. 2% x½".
910-6584. Type 274-1544. 4 oz....1.79

Set of 3. Shielded. Nickel-plated barrel. Solder terminals. 2%". 910-6520. Type 274-285. 4 oz..................1.39

SET OF TEST LEADS



ALLIGATOR CLIPS



10 Insulated 1¼" Clips. Assorted. 910-6130. Type 270-378. 3 oz......

12 Insulated 15/2". Blk., red. Lugs. 910-6180. Type 270-1545. 4 oz.....

16 Uninsulated Clips. Screw conn. 910-6141. Type 270-348. 4 oz......1.59



11-PIECE TEST LEAD SET

326 • ALLIED

REALISTIC® WIRELESS INTERCOMS



REASONS FOR BUYING "WIRELESS"

- CONVENIENT: Use one in every room
- NO INSTALLATION: Just plug into AC outlet-no connecting wires! Move from room to room as desired
- VERSATILE: Add any number of units. Continuous operation-ideal for "baby sitting", monitoring ...

FM WIRELESS 2-STATION INTERCOM SYSTEM NO FLUORESCENT NOISE OR STATIC! PERFECT FOR HOME OR OFFICE

Frequency modulation eliminates "AM" line noise. No connecting wire-just plug units Frequency modulation eliminates "AM" line noise. No connecting wire—just plug units into two outlets operating from the same distribution transformer. Illuminated Talk-Bar is easy to find, even in the dark. "Beep" call tone alerts remote stations. Locks "on" for monitoring child's room, etc. Since no wiring is required units may be moved from room to room as needed. Solid state for low current drain, never needs to be turned off. Off/Volume control. "Talk," "Lock" and "Call" controls. Adjustable squelch eliminates noise between calls. Attractively styled case fits into any decor-simulated walnut with whits and blook according. with white and black accents.



2-WAY WIRELESS INTERCOM **Two-Unit System**

Each unit is a Master station. No wiring necessary—just plug units into a convenient AC outlet. Off/Volume control. Lock button for hands free conversation, etc. Solid state. 2½" speaker for extra clear voice reproduction. 5x5½x5½". AC. U.L. listed. Shpg. wt.: 4 lbs. 910-0057. Type 43-209......Each 34.50



INDOOR/OUTDOOR INTERCOM

Two-station system. Remote signals master—even with system off. Operates on batteries (included). For desk top or wall mount. 66' connecting wire. Size: 4½x3½x1¾". Shpg. wt.: 3 lbs. 910-0181. Type 43-221......Each 12.95



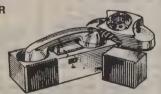
4-STATION INTERCOM SYSTEM



TWO-WAY TELEPHONE AMPLIFIER

Needs No Installation

Ideal for family or business confer-Ideal for family or business conference calls. Just put the phone in the cradle to turn the amplifier on. A volume control lets you set the listening level. Earphone jack for private listening. Amplifier: 101/x x41/x x31/4". Speaker: 31/x 24/x x41/". Complete with battery. 910-0200. Type 43-230....Each 15.95



SELECTACOM™ 2-CHANNEL 3-STATION INTERCOM SYSTEM

Two channels for versatility and privacy These units let you set up two separate intercom systems. "A" and "B" channel switch. Locking talk-bar. Variable squelch cuts line noise. Size: 34%x64x 1%". U.L. listed. Shpg. wt.: 2½ lbs. 910-0177. Type 43-226 69.95

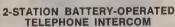


DUOFONE ANSWERING SYSTEM

Automatically Answers Up To 20 Incoming Calls

Complete System, Nothing Else To Buy

No more worrying about missing important calls or business. DUOFONE answers your phone automatically and gives the caller your 15 second pre-recorded mes-sage. Its built-in recorder tapes caller's 30 second reply for playback at your convenience. "Message Maker" control center allows you to change your outgoing message anytime. See-thru window indi-cates calls received. Fast-forward button quickly locates any message for playback. When you return home just switch off the DUOFONE and your telephone returns to normal operation. Comes complete with 3



Battery-saver circuit shuts off power when Battery-saver circuit sinus on perewhen not in use. Mounts on desk or wall. Hi-impact plastic molded cases. Size with base: 3%x9%x3%e". With connecting cable and full instructions. Wt. 5 lbs.
910-5568. Type 43-242Each 21.95



TELEPHONE AMPLIFIER

- Helps The Hard-Of-Hearing
- Instant Installation

This four transistor telephone amplifier helps the hard-of-hearing by boosting the incoming voice signal up to five times its normal level, eliminating surrounding noisy distractions. "Snaps-On" any standard

STANDARD DIAL TELEPHONE

- Reconditioned Guaranteed
- For Extension Phone or Intercom



327

High Performance PA and Music Systems

CLARINETTE® 88-BEST SOUNDING "HOME ENTERTAINMENT COMBO"

|====| 3-Way Speaker **Systems** • 8" Air-Suspension • 51/4" Midrange Unit 4" Horn Tweeter **Electronic Crossover**

Powerful 15-watt RMS output (5% THD), ample for driving extra set of speakers. Every control for exceptional flexibility easy to use slide controls for bass, treble, volume, balance. Lighted indicators show tape programs, stereo broadcast. Inputs for guitar/mike, tape recorder, external antennas. Outputs for remote speakers, headphones, tape recorder. Switchable AFC and loudness. Tape player has manual and automatic program change. Unswitched AC convenience outlet. Control Center Size: 101/4 x241/4 x151/2". Speaker Size (each): 225/4 x x151/2".

143/4 x81/4" 910-1075. Type 13-1194. U.L. Listed Each 269.95 910-1076. Type 42-3000. 45-rpm Adapter Each 1.49 Realistic® Stereo Music Center With **Built-In 8-Track Tape Player**

- 15-Watt RMS Output for Full Power Base
- 4-Speed Automatic Turntable with **Diamond Stylus, Cueing**
- AM/FM Stereo Tuner with Integrated Circuits for Reliable Performance
- Speakers Separate Up To 24' for Full **Dimensional Stereo Listening**





- Realistic MPA-20
 20-Watt PA Amplifier
- Dynamic Lavalier Mike with Stand
- 8-Watt 5" Powerhorn Weatherized Speaker

Reg. Separate Items Price \$106.85

Save 10.50

9635

Complete System

When ordering complete system use system price shown above.



- Realistic MPA-20
 20-Watt PA Amplifier
- Realistic MC-1000 Wide-Response Mike
- Two 8" Baffle/Speakers for Wall Mounting

Reg. Separate Items Price \$118.80

Save 13.35

Complete System

REALISTIC MPA-20 20-WATT PA AMPLIFIER. Complete solid state PA amplifier with two mike inputs plus phono/aux input. Operates from 117 VAC line cord; or plugs into 12 VDC car/truck cigarette lighter. Has volume controls for each mike, master volume control, phono/aux and tone controls does and the control of the process of the control of the process of the process of the control of the process of the control
When ordering complete system use system price shown above.



CT60 "ACOUSTA-MASTER" SOLID STATE PA AMPLIFIER

Five equalizer filters with slide controls provide unique Five equalizer filters with slide controls provide unique anti-feedback and tone-control circuit; permits boosting or attenuating any of five frequencies to "tune out" acoustic feedback, increase usable power and intelligibility. Built-in compressor assures uniform output, regardless of input level variations. It also eliminates "blasting" in background music applications. Circuit uses all silicon transistors and diodes. Automatic-reset circuit breakers on input and output. Simultaneous mixing of five input signals, four microphones and a tuner, recorder, or phonograph. Memory level markers.

Power Output: 60 watts at 1000 Hz, with less than 2% distortion. Frequency Response: ±2 dB, 50-15,000 Hz. Inputs: 4 hi-Z mike (convertible to low-Z with optional transformer); 2 aux with fader control; bridging; remote volume control. Sensitivity: Hi-Z mike, 3 mV; low-Z mike, 0.3 mV; bridging, 30 mV; aux, 0.3 V. Outputs: 4, 8 and 16 ohm speaker; 25 V c.t. and 70 V balanced line; tape, booster and bridging. Hum and Noise: mike, —60 dB; aux, —70 dB; fundamental, —80 dB. 16%x13%x4¼". For 117 VAC, 50/60 Hz. Smpg. wt. 22 lbs. 733-1010....... Each 246.85 4-Up........ Each 221.70

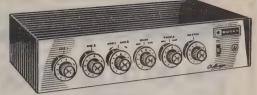


CHS-A SERIES POPULAR-PRICED SOLID-STATE PA AMPLIFIERS

Model CHS100A. Moderately priced amplifier is loaded with professional features for a variety of PA applications. Has two microphone inputs and two separate auxiliary inputs. Microphone inputs can be high-impedance unbalanced, low-impedance unbalanced or low-impedance balanced (using optional plug-in transformer). One microphone input is convertible to magnetic cartridge; all mike inputs accept Type XLR-3-11 connector. Built-in compression assures constant output, over a wide variation of input levels; has 5 M-sec attack time, 2 second delay time, maximum compression of 15 dB. Two output jacks.

Power Output: 100 watts. Frequency Response: ±2 dB, 70-12,000 Hz. Outputs: 4, 8 and 16 ohms; 25 V centertapped and 70 V balanced lines; tape output, 1000 ohms. Controls: microphone 1, microphone 2, auxiliary 1, auxiliary 2, master volume, bass, treble, compression switch, power switch and pilot light. 16%x13¾x4¼". For 117 VAC; draws 300 watts. Shpg. wt. 26 lbs. 733-1030......Each 219.44 4-Up......Each 197.50

Model CHS60A. As above, but 60 watts output, 23 lbs. 733-1035..... Each 180.00 4-Up..... Each 162.40



C SERIES ALL-SILICON SOLID-STATE **ECONOMY-PRICED PA AMPLIFIERS**

Model C100. Complementary transistor circuitry assures high reliability of power transistors. Has inputs for two Hi-Z mikes and two high-level auxiliary (for tuner, recorder or phono); simultaneously mixes two microphones and one auxiliary. Mike inputs have filters to protect against RF interference. Can be wired for music muting.

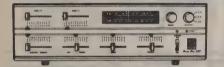
Power Output: 100 watts. Sensitivity: mike, 3mV; aux, 0.5 V for full output. Hum and Noise: mike, —60 dB; aux, —70 dB. Outputs: 4, 8 and 16 ohms balanced; 25 V and 70 V balanced line; tape, booster amplifier jack; two plug-in speaker sockets and screw terminals. Controls: master volume, two mike gain, auxiliary gain, separate bass and treble. Advanced design permits continuous operation. Compact steel cabinet, 14%x13%x3%x". For 17 VAC. Shpg. wt. 18 lbs.

Model C60. As above, but 60 watts output. 16 ibs. 733-0082......Each 140.80 4-Up.....Each 126.45

Model C35. 35 watts. 14% x12% x33% ". 14 lbs. 733-0081 Each 119.15 4-Up Each 107.00

HIGH-PERFORMANCE PROFESSIONAL PA AMPLIFIER





- All Silicon Transistors and I.C. Circuits
- Resettable Safety Circuit Protection
- Extra Microphone Channels-Low or Hi Imp.
- Priority Page Built-in on Microphone 2
- Unique Slide Controls—Memory Marker

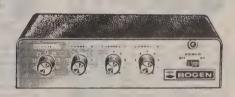
Model PP35T. Powerful public address amplifier offers a high level of performance-engineering. Extensive use of integrated circuits and long-life components achieves high reliability in professional PA amplifiers. Features modular driver and pre-amp circuits—make replacements, if ever necessary, an easy task.

Provides a high fidelity solid-state power output with unusually low noise. Operates on 117 VAC, 50/60 Hz or 12 VDC power for mobile use. Slide controls and memory markers make Power-Plus convenient to operate. Outputs: 4, 8, 16 ohms, balanced 25 volts, 70 volts outputs are on standard plug connectors (supplied) and all the others are on screw terminals.

The amplifier functions as mixer and provides 0.5 volts "booster" output for tape recording or stacking a number of Power-Plus amplifiers to obtain the necessary power requirements. Two high-impedance mike inputs, one low-impedance mike input, one auxiliary input. Has mag phono input. Music power, 50 watts; RMS, 35

Model MX6A-T. Makes it possible to add up to four extra Model MXSA-T. Makes it possible to add up to four extra hi- or lo-Z mike channels to amplifiers or tape recorders. Two of the four channels can be used for high-level tuner or phono input. Provides fine performance with electric guitars. Individual volume controls for each input. Up to three mixer-preamps may be paralleled to give 12 inputs. Separate high and low-level outputs drive any amplifier through its mike or aux. input; drives power amplifiers with 5-V or better sensitivity.

SOLID-STATE MIXER-AMPLIFIER





MT125 BOOSTER AMPLIFIER

MT125 BOOSTER AMPLIFIER
Solid-state. 125 watts cont. output;
less than 5% THD, 115 watts cont.
output; less than 1% THD, 250
watts peak. Use with any PA amplifier or preamp that provides driving voltage of at least 800 mV across
30,000 ohms. Music/Speech selector switch, volume control, AC circuit and thermal overload breaker.
Uses silicon transistors. 120 VAC,
or 48-56 VDC. Outputs: 8. 16 ohms.
25 V c.t. bal. or unbal., 70 V and
115 V. Freq. Res.: ±2 dB, 20-30,000
Hz. Gain: 68 dB. Sens: hl-Z, 0.8 V.
8x13x61/2". Wt. 25 lbs.

733-1070. Ea. 303.60 4-Up Ea. 272.75



MODEL M0100A **BOOSTER AMPLIFIER**

Power output 100 W rms. Built-in provision permits paralleling any number of power amplifiers to mul-tiply power input. With variable fretiply power input. With variable frequency audio generator input, can be a relatively Inexpensive power source capable of driving servos, motors, vibration tables, ultra sonic equipment. Frequency Response: 8-50,000 Hz. 1 dB. Output Impedance: 16 ohms; balanced 25 volts, 70 volts, 115 volts. Hi-Z; Lo-Z with optional TL600 trans. 105/125 VAC, 50/60 Hz. 8x13x64/... 33 lbs. 733U0010. Ea. 195.39 4-Up Ea. 175.85



MODEL M0200A **BOOSTER AMPLIFIER**

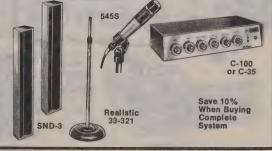
Power output 200 W rms. Uses include sound systems in industrial plants, airports, stadia, schools and wherever undistorted power is required. With a variable frequency audio generator input, this unit represents a power source capable of driving servos, motors, vibration tables, ultrasonic equipment. Frequency Response: 8-50,000 Hz 2 dB. Output Imp.: 16 ohms, bal. 25 V, 70 V, 115 V. Hi-Z; Lo-Z with optional TL600 trans. 105/125 VAC, 50/60 Hz. 16x11½x6". 65 lbs. 733-0015. Ea. 362.39 4-Up Ea. 326.15 Power output 200 W rms. Uses in-

SAVE ON INDOOR PA SYSTEMS 733PX0081. When parents with package 107.23 SND-3 Speakers. Heavy duty sound column includes six 8" speakers for 72-watt power capability. 50-15,000 Hz. 8 ohms. 51x11x7¾". 42 lbs. 973PX1110. When purchased separately 99.25

Realistic Mike Stand 33-321. Clutch adjusts instantly from 35 to 62" and lock positively. Chrome plated two section tube. 10" base. %"-27 threads. 10 lbs. 910PX0054. When purchased separately. 15.95

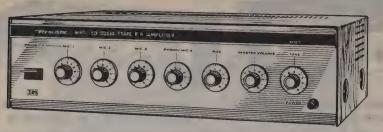
944PX0546. When purchased separately.

Allied 6W6HFL 70.7 volt Line-To-Voice-Coil Transformer. Watt taps: 24, 12, 6, 3, 1.5, 0.75. Secondary ohms: 4, 8, 16. Max. watts: 24. 705PX0804. When purchased separately 8.00 With package 7.20



Realistic PA Amplifiers, Powerhorns, VHF Monitors

50-WATT PA AMPLIFIER WITH INSTANT "PRIORITY" PAGING SWITCH



- Complete, Solid-State PA Control Amplifier!
- Switch for Mike-1 Lets You Override All Other Channels

STEREO MIXER WITH PHONO INPUT



Separate Level Controls for Each Mike

Professional Quality at a Low Price

20-WATT SOLID-STATE PA AMPLIFIER OPERATES INDOORS OR FROM CAR



Type 32-2020. Has 117 VAC line cord and 12 VDC power cord. Two mixing mike inputs. Controls: volume, phono/aux, master volume, tone. Ideal for sound trucks, outdoor music/PA systems or indoor music/PA systems. Adj. bracket for under-dash mounting. Aluminum panel, black metal case. UL listed. Power output: 20W at 4, 8, 16 ohms, plus 25 and 70 volts line outputs. Input impedance: 100,000 ohms for mic and phono. Sensitivity: mic, 3 mV; aux and phono, 270 mV. Response: ±1 dB, 20,000 Hz (at full power, 200-10,000 Hz). Size: 3x10x7½". Shpg. wt. 12 lbs. 910-0011

MIKE MIXER WITH PHONO INPUT FOR MONO/STEREO RECORDING AND PA USE

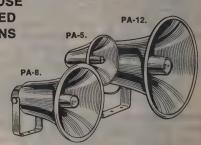


Model 33-920. Great for beginner sound engineers. Lets you mix and record phonographic sounds with microphone inputs. For recording and general purpose PA uses. Provides excellent performance as you mix mikes with professional touch. Mixes four mono mikes or a pair of mikes to each stereo channel. Has stereo/mono switches, off switches, phono jack. High impedance. Size: 6x3½x2½". Shpg. wt. 1½ lbs.
910-0138. Each 12.95
Model 23-464. 9-Volt battery. Mike mixer requires 1. Model 33-920. Great for beginner sound

MULTI-PURPOSE WEATHERIZED **POWERHORNS**

Shock and Rust Resistant

Stand Up to Rough Use



Inexpensive powerhorns designed and constructed to bring you full sound and clarity in any situation . . . industrial, commercial, military, educational or police. Completely weatherized . . will work and project effectively and clearly in any atmospheric condition all year round. Shock resistant, rust resistant. Excellent for crowd control, sporting events, outdoor concerts . . . stand up to really rough use.



NEW!

VHF SCANNING MONITORS — DUAL BAND OR HIGH BAND

- Automatic Scanning of 8 Crystal-Controlled Channels
- Channel Lock-Out, Skipper, 2-Second Scan-Delay Circuits
- 10.7 MHz, 4-Element Crystal Filter to Cut Interference
- Scanning Speed of 10 Channels per Second

INDOOR

AC or 12 VDC Operation

Get In on the Action with either of these scanning monitor receivers. PRO-77 Dual Band Receiver lets you monitor both 30-50 MHz and 148-175 MHz bands. PRO-7A High-Band Receiver lets you monitor 148-175 MHz. Automatically monitor any 8 frequencies of both bands with the PRO-77 receiver; Or monitor 8 frequencies of one band with the PRO-7A. Skipper circuit lets you bypass locked-out channels, instantly restoring them at the touch of a button — Or you can manually select each channel. Each has lighted channel indicators, IC/FET circuits, sensitivity of less than 1.0 µV for 20dB quieting, DC gated squelch, built-in speaker, 120 VAC or 12 VDC negative ground. Includes headphone and extension speaker jack. With mounting bracket, cables and manual. UL listed. 3x7½ x9½".



• Two 8" Speakers and Baffles . . . Or, Two 15-Watt 8" Powerhorns

NOTE. When ordering system . . . list stock numbers below for amplifier, mike and mike stand . . . plus . . . stock number of speakers. 20-Watt Solid-State Mobile/Base PA Ampli-

fler. Same as Type 32-2020 above. If you order amplifier above, don't use stock number below. Shpg. wt. 12 lbs. 910-PX-0011. Ea. 79.95, with pkg., Ea. 71.95

Low-Profile "Sure Grip" Mike Stand. "Sure Grip" clutch adjust instantly from 35" to 62". Chromed tubes and low-profile bases prevent

accidental kicking. Bases feature levelling shock absorber pads for instant placement and use anywhere, anti-tipover bumpers to prevent accidents. Standard \(^4/^2-27\) threads for easy connection to "Highbail-2" mike. Cast base. Shpg. wt. 12 lbs.
910L2-P-0053. 33-320 Ea. 13.95, w/pkg. 12.55

8" Speaker and Baffle. Mounted in Walnut wall mounting baffle. Includes pre-wire L-pad volume control. Shpg. wt. 4 lbs. 910-PX-7111. 40-219 Ea. 12.95, w/pkg. Ea. 11.65

OUTDOOR

PORTABLE PA SOUND SYSTEM

10 Watts-Range



Model MVS-10. Versatile, compact portable PA sound system has separate input for music source. Voice and music can be amplified simultaneously. Lightweight system includes dynamic microphone with talk switch and coil cord, mike storage compartment, volume control, shoulder carrying strap. Reliable solid-state amplifier is rated 6 watts (10 watts peak). Ideal for use on guided tours, lectures, dances, political rallies and spot announcements. Has range of 600 yards (subject to environment and ambient noise level). Requires six "C" batteries (not included). 10%x7½x3½". Shpg. wt. 5 lbs. 790-0010. 1-4. Ea. 105.25 5-Up. Ea. 96.95

BATTERY-OPERATED SOLID-STATE MEGAPHONES

200-YARD MEGAPHONE



Model MV-3. Ideal for indoor as well as outdoor use. Features slide switch for high or low power. Carries over a range of 200 yards. Rated 1.5 watts (3 watts peak). Pistol-grip trigger switch. Flared bell provides projection and reinforcement. Transistorized circuit. Weatherproof aluminum construction. Built-in dynamic microphone. Carrying strap. 8%x13" long. Uses 4 "D" batteries. Shpg. wt. 4 lbs.
790-0003. 1-4. Ea. 55.02 5-Up. Ea. 50.95





Model MV-5S. Provides a rated power output of 5 watts (6 watt peak power). Good coverage over a 300-yard range. Built-in siren; waterproof dynamic microphone (noise-cancelling); pistol-grip trigger switch. Flared bell gives excellent projection and reinforcement. High-impact plastic housing. Push-pull Class B circuit. Volume control. Carry strap. 7½x13". Uses 4 "D" batteries. 4 lbs. 790-0004. 1-4. Ea. 70.97 5-Up. Ea. 65.40





Model MV-8S. Self-contained battery-powered portable megaphone sound system. Ideal for police, fire, civil defense, industrial, recreational and crowd control applications. Just touch the pistol-grip trigger switch for powerful voice projection—carries up to 600-yard range. Built-in siren signal. Push-pull Class B 5-transistor amplifier provides rated output of 8 watts (10 watt peak power). Volume control compensates for loss of battery power. Lightweight aluminum; durable baked enamel weatherproof finish. Built-in hi-efficiency dynamic microphone. Carrying strap. 7x 14" long; 9" bell diam. Uses "C" batteries. Shog. wt. 5 lbs. 790-0008. 1-4. Ea. 83.45 5-Up. Ea. 76.95 Model MV-16S. Same as above, but 16

Model MV-16S. Same as above, but 16 watts-800 yards. Shpg. wt. 7½ lbs. 790-0012. 1-4. Ea. 95.60 5-Up. Ea. 87.95 Model MV-20S. Same as above, but 20 watts-1000 yards. Shpg. wt. 10 lbs. 790-0014. 1-4. Ea. 114.85 5-Up. Ea. 105.95

RADIO POCKET PAGING SYSTEM - FOR SIMPLE, PRIVATE COMMUNICATIONS

- Signals Select Personnel Up to a Half Mile from Central Location
- Compact Receivers Fit in Pocket or Can be Clipped to Belt
- Selector Console Can be Used with Up to 20 Pocket Paging Units

Provides simple, radio controlled communications to selected personnel within your building, or up to half a mile away from a central location. Personnel to be contacted simply keep a compact receiver in their pocket or clipped to belt. When anyone needs to be contacted, the switchboard operator presses a specified button on the central selector console, and a beep signal is emitted by the individual's receiver until it is turned off. Paging system is easy to install, easy to operate.

COMPONENTS: Model TR-20 5-watt crystal controlled transmitter uses Class C Citizens Band signal on a 27.255 MHz frequency. For 117 VAC. Supplied with screw-in antenna. Model EN-20 Selector Console offers a capacity of up to 20 pocket paging units; finished in black with walnut wood grain end panels. Each Model PG101R Pocket Paging Receiver is constructed of lightweight, high-impact tan styrene plastic; only 3½x 134.34%, weighs just 2 ounces. Has distinctive "beep" signal and reset switch, convenient pocket clip, on-off switch. Built-in operation-battery tester. Powered by two mercury batteries that provide up to 500 hours of life.

Stock No.	Model No.	Description	Dimensions, H x W x D	EACH
790-2000	TR-20	Radio Transmitter	2% x 8% x 7"	211.70
790-2010	EN-20	Selector Console	2% x 6% x 8%"	158.50
790-2020	PG-101R	Paging Receiver	3½ x 1¾ x ¾"	100.00



ALL-TALK ECONOMY INTERNAL TELEPHONE SYSTEM

Call Signal Selects Desired Remote

Conference Capability

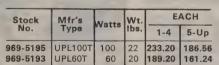
Telephone intercom system combines the advantages of selective calling with the economy and ease of installation of a common conversation line. Up to six stations (including CT-5 master) may converse with each other by simply pressing the appropriate assigned number to signal the other party with a pleasant tone call. Anyone lifting an All-Talk receiver automatically enters the conversation line; but the selective calling generally limits conversation "by invitation only." Depressing station buttons in turn assembles several or all parties for conference calls. Anti-side tone circuitry provides natural voice quality and self-cleaning long-life isostat switches. Can be used as master-to-remote, all-master, or intermixed system. In an intermixed system, any master can call any other master or remotes; remote can call only one master. Hi-impact plastic housings; desk or wall mount. Requires cable with 4 wires plus one less than total number of phones in system. than total number of phones in system.

- Model PS-CST Power Supply. For above system. Wt. ½ lb. 790-3030. 1-4 Each 29.95 5-Up Each 28.30



PUBLIC ADDRESS AMPLIFIERS TO 100 WATTS

- Feature Both High and Low Mike Impedance Inputs
- Constant-Voltage Output for Large Installations
- Direct-Coupled Circuits End Insertion Loss
- Electronic Output Transistor Protection
- Mixes and Amplifies 3 to 5 Input Signals
- Automatic Speaker Protection Circuit





Solid-state circuits reduce the need for Constant-Voltage systems in small-to-moderate size installations; Constant-Voltage 25 and 70.7V output provided for larger systems. Control, mix and amplify three or more input signals, deliver rated power into 4 to 20 ohm loads. Switched AC output; fused AC line. Frequency response: 50-15,000 Hz, $\pm 11/2$ dB. Five inputs, master gain control, base and treble controls. Total Harmonic Distortion: less than 5% at rated power and frequency response. For 95–130 V, 60 HZ AC. 5x15\%x10\%2".

10-WATT BACKGROUND MUSIC AND PA AMPLIFIER



PA Horns, Drivers and Speakers



MODEL WAH WIDE-ANGLE PROJECTOR. All purpose, high efficiency exponential reflex horn for use with any 13/4"-18 thread high compression driver. May be rotated horizontally and vertically or stacked for multi-speaker cluster. Low Frequency Cutoff: 115 Hz. Dispersion: 120° x 60°. Non-resonant, weatherproof fiberglass bell. Air Column Length: 4½". Size: 23"w x 13"hx 17"l. Shpg. wt: 13½ lbs. 733-0430. Each 46.93 4-Up. Each 42.15

MODERATE POWER OMNI-PURPOSE PA SPEAKERS. Sealed, all metal construction. 30 watt driver. Adj. mntg. bracket. Varnish impregnated transformer. Screw terminal connections.

Model SP-8. For medium power applications. 30 watts rms, 40 watts equalized. Bell clear tone. Response: 225-14,000 Hz. Sound Level: 125 dB. Dispersion: 100°. Impedance: 8 ohms. Size: 10 x 9½ x 10 ½" Shpg. wt: 6 lbs. 733-0425. Each 33.31 4-Up. Each 31.50

Model SPT. Same as above but with adjustable Vari-Tap switch for 2500, 1300, 666, 333, 167, 89 or 45 ohm impedance. Full power on 70V, 15 or 30 watts; 25V, 1.8, 3.7, 7.5 or 15 watts. Shpg. wt: 6 lbs. 733-0427...........Each 45.26 4-Up.........Each 40.65

HEAVY DUTY COMPRESSION DRIVERS. For high intelligibility and wide mid-range response. Alnico V DG magnet. Replaces any standard speaker with 13/6"-18 threads. Double weather

Model DR-30. 30 watts continuous, 50 watts equalized. Response: 85-700 Hz. Sound Level: 128 dB. Impedance: 16 ohms. Shpg. wt: 4 lbs. Each 27.73 4-Up. Each 23.10

Model DR-40T. 40 watts continuous, 60 watts equalized. Response: 80-12,000 Hz. Sound Level: 131 dB. Impedance: 2000, 1000, 500, 250, 125 and 16 ohms. 70V taps: 2.5, 5, 10, and 40 watts. Shpg. wt: 7 lbs.
733-0445 ... Each 47.09 4-Up ... Each 42.30



ID-30T

DLC

MIS-8





PA SPEAKERS FOR EVERY APPLICATION







MODEL IB-A8. PAGING AND TALK BACK SPEAKER. Line matching transformer. Push-clip terminals. Dispersion: 105°. Response: 250-13,000 Hz. 30 watts. 8 ohms. Sound Level: 126 dB. Omni-Lock swivel mount; Converts to fit ½" pipe. Size: 10½ dia. x 9". Wt: 4½ lbs. 969-5131. Ea. 30.25 4-Up. 27.17

MODEL MIL-A8. PAGING AND TALK BACK SPEAKER. Rated 10 watts. Response: 350-16,000 Hz. 8 ohms. Dispersion: 120°. Sound Level: 119 dB. Omni-Lock swivel mount; converts to fit ½" pipe. Size: 7½,6 dla. x 6%". 3½ lbs. 969-5150...Ee. 25.50 4-Up. .22.91

MODEL DLC-8 PAGING AND TALK BACK SPEAKER. Reflex baffle. Response: 400-10,000 Hz. Power: 7.5 watts. Dispersion: 120°. Sound Level: 104 dB. Impedance: 8 ohms. Mounting bracket with single control for fast resetting. Size: 5% dia. x 4". Shpg. wt: 134 lbs. 969-5119. Ea. 15.55 4-Up. 13.97

MODEL MIS-8 LOW POWER RE-FLEX SPEAKER. Higher efficiency replacement for cone speaker. Weatherproof. Response: 500-13,000 Hz. Power: 7.5 watts. Im-pedance: 8 ohms. Dispersion: 150°. Sound Level: 115 dB. Size: 5½ dia. x 4½°. Shpg. wt: 2½ bs. 969-6165. Ea. 26.30 4-Up.. 23.63

MODEL CIB-A8 RE-ENTRANT HORN SPEAKER. High efficiency. Max. intelligibility. Omni-Lock swivel mount. Response: 250-13,000 Hz. Power: 30 watts. Impedance: 8 ohms. Dispersion: 120° x 60°. Sound Level: 126 dB. Size: 14 x 7% x 12" Shpg. wt: 6 lbs. 969-5000. Ea. 35.70 4-Up. .32.05

COBREFLEX TRUMPET. Dual-folded wide angle exponential horn with twin air columns in a single assembly. Low Frequency Cut-Off: 200 Hz. Dispension: 120° x 60°. Air Column Length: 2½ ft. Horn Length: 10½°. Bell Size: 18½ x 9½°. Shpg. wt: 10½ lbs. 969-5005. Ea. 35.35 4-Up. .31.73

MODEL CLC WEATHERPROOF HI-FI SPEAKER. Full-range weather-proof speaker for outdoor systems. 30 watts IPM. Response: 55-14,000 Hz. 8 ohms impedance. 120° dis-persion. 118 dB sound level. Size: 22½ dia. x 121½." Wt: 20 lbs. 969-5120. Ea. 95.10 4-Up..84.75

MODEL ID-30T DRIVER. Tropicalized 2" voice coil, linen base phenolic diaphragm. Response: 85-7500 Hz. Line matching transformer. Impedance: 167, 335, 500, 1000, 2000, 4000 ohms. Power: 1.25, 2.5, 5, 10, 15, 30 watts. Size: 4½ x 6". Shpg. wt: 4 lbs. 969-5136. Es. 36.45 4-Up. 33.63

MODEL ID-40A DRIVER. Wide response and exceptional efficiency. Mid-range response is unusually clear. Excellent dispersion area. 40 watts power capacity. Response: 80-12,000 Hz. Impedance: 16 ohms. Size: 4½" diameter by 4½". Shpg. weight: 4½ lbs. 969-5138. Ea. 31.20 4-Up. 28.00

MODEL ID-40T DRIVER. Same as ID-40A but with built-in line matching transformer. Watertight dural gland nut. Impedance: 45, 122, 250, 500, 1000, 2000 ohms. Power: 70V line; 2.5, 5, 10, 20, 40 watts. Size: 5" diameter x 61/4". Shpg. wt: 51/4 lbs. 969-5140. Ea. 43.65 4-Up. .39.20

SPEAKER AMPLIFICATION CHART

The chart below has been designed to help you determine your speaker and amplification requirements in relation to the environmental noise level.

Total Number	Total Amplification Recommended (in watts)							
of Speakers	Normai	Noisy	Very Noisy					
1	1/2	2	5					
2 3	1	4	10					
3	11/2	6	15					
4 5	2	8	20					
	21/2	10	25					
10	5	20	50					
20	10	40	100					
50	25	100	250					
100	50	200	5000					
150	75	300	750					
200	100	400	1000					
500	250	1000	2500					
750	375	1500	3750					
1000	500	2000	5000					

SOUND LEVEL CHART

The chart below has been designed to help you determine noise levels.

General Location Description	Noise Level In dB	Noise Quality
Factory (Very Noisy) Machine Shop (Average) Printing Plant	90	Very Noisy— Conversation Difficult or Impossible
Ball Room (Normal Use) Restaurant (Noisy) Assembly Line (Noisy) Factory (Average) Machine Accounting Area R.R. or Bus Depot Auditorium (Average) Shipping/Receiving Dept	75 70	Noisy— Voice Must Be Raised To Be Understood
Department Store Auditorium (Quiet) Restaurant (Average) Store (Quiet) Office (Quiet) Hotel Lobby Dectors Waiting Room	65 60 55	Normal— Normal Conversation Easily Understood

HU-12N

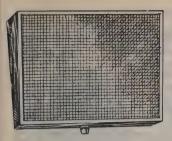


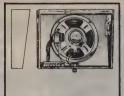


RH-500

MODEL RM-500 RADIAL TYPE WEATHERPROOF HORN. Designed for controlled, resonance free high power sound reproduction in middle and upper frequency range. For use with any high compression driver unit having standard 1% "-18 mounting threads. One-piece cast aluminum. Low Frequency: 500 Hz. Dispersion: Hor., 90°; Ver., 40°. Sound Level determined by driver. Dull black finish. Size: 273/4 x 8½ x 16¼". 23½ bis. 730-0540......Each 103.43

MODEL HU-12N SOUND PAGING TALK BACK SPEAKER. 3 times the sound level of small cone speakers. Power: 7.5 watts. 350-13,000 Hz. 115 dB. 120° dispersion. 8 ohms. 7½ dia. x 7½". 3½ lbs. 730-0418... Each 23.16 MODEL AP-30 PA SPEAK MODEL AP-30 PA SPEAK-ER. 30 watts. Varnish im-pregnated transformer. Adj. mounting bracket. Re-sponse: 225-14,000 Hz. Sound Level: 125 dB. Dis-persion: 100°, 8/45 ohms. 10 x 9½ x 10½". 6½ lbs. 730-0015... Each 30.39 MODEL AP-30T PA SPEAK-ER. 30 watts. Cobra-flare fiberglass horn. 70.7 and 25V line. 45 ohm intercom tap. Impedance: 167, 333, 666, 1000, 2000, 4000. 225-14,000 Hz. 125 dB. Size: 10 x 9½ x 10½". 6½ bs. 730-0017.... Each 39.34 MODEL AP-15T PA SPEAK-ER, 15 watts. Bell clear tone. Transformer, 70 or 25 V lire. 121 dB. Re-sponse: 275-14,000 Hz. Dis-persion: 110°. Impedance: 45, 89, 333, 666, 1300, 2500, 5000 ohms. 8x8x9". 5 lbs. 730-0014.....



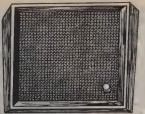


EXTRA-THIN BAFFLE WITH 8" SPEAKER

Smart, modern styling in a sloping baffle that's only 4" deep. Features 8" dia. shallow speaker with internal dust shield, bonded magnet structure and barium ferrite magnet for more sound per watt. Ideal for use in classroom, offices, reception rooms and many other background music and paging system applications. Impedance, 8 ohms. Size, 9x12x4".

Available as baffle-speaker unit, with tapped transformer and L-pad volume control for adjustments right at the speaker. Screw terminal for fast installation. Supplied with all hardware for easy mounting. "T" suffix in Mfr's type indicates baffle-speaker with transformer, tapped at 5, 2.5, 1.25, 0.62 and 0.31 watts. "V" suffix with volume control. Ideal for uses in numerous military, hospital, commercial, educational, industrial and business applications. Goes with any modern decor or surroundings.

Stock	Mfr's	Enclosure Wt., EACH			
No.	Туре	Finish	Lbs.	1-4	5-Up
973X1135	TP8A-VT	Walnut-Finished Wood	4	24.56	21.35



DELUXE BAFFLE WITH 8' SPEAKER, CONTROL, 70.7-V TRANSFORMER

Type 1206. Excellent where quality background sound is essential. Styrene baffle has fine-furniture finish. 8" speaker, with ceramic magnet, has factory wired L-pad volume control. 70.7 volt transformer has screw terminal taps for 10, 5, 2.5, 1.25 and .62 watts. 10 3/4 x13x6". Wt. 5 lbs.

/ 6		-	1	
973-1206. 1-4	*** *		Each 20.40)
5-Up	.1		Each 18.35	;

no tr	ansfo	Samer.	Han	dles	25	watts
973-1	205.	1-4	·	Е	ach	

COMPACT 2-WAY ACOUSTIC SUSPENSION SYSTEM



Type AS-2AX. Delivers clean, full-dimen-Type AS-2AX. Delivers clean, full-dimensional sound in a space-saving, economical system. Features an 8" high compliance woofer, sensitive 3½" direct radiator tweeter with an Alnico V magnet. Frequency response: 45-17,500 Hz. Power capacity: 12 watts program, 24 watts peak. Electrical crossover at 5 kHz. Impedance: 8 ohms. Airtight, wainut veneer cabinet measures 11½x17½x81½". Wt. 20 lbs. 973-1400. 1-4. Ea. 33.40 5-Up. Ea. 30.00

MODERN STYLED WALL BAFFLE



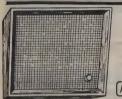
Type S8-W. Trim, recessed front design. Acoustically correct particle board construction of frames and front panel. Hardware incl. 71/4x81/4x41/4". Wt. 1 lb. 973-1102. 1-4. ... Each 11.72 5-Up ... Each 10.27

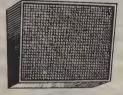
D

BAFFLE WITH 8" SPEAKER



Type S8C-W. Thin profile 8 ohm Type S8C-W. Thin profile 8 ohm speaker mounted in walnut-finished enclosure. Ideal for background music or paging. Hardware incl. 9x11x6". Wt. 234 lbs. 973-1103, 1-4. ... Each 12.27 5-Up Each 10.73





B

BAFFLE-8" SPEAKER, 70.7 V TRANSFORMER A BAFFLE—8" SPEAKER, 70.7 V TRANSFORMER Type U8A-3W. Speaker, transformer and L-pad volume control are already connected to screw terminals. No soldering — all you need is a screwdriver. Transformer taps for 2, 1 and 0.5 watts. Speaker has powerful Alnico V magnet. L-pad maintains a constant impedance on the line. Walnut grain is molded into the styrene baffle, color goes all the way through. 10³/₄x13x6". 973X1305, 3¹/₄ ibs. 1-4..... Each 16.30 5-Up..... Each 13.75

LOW-COST BAFFLE WITH 8" SPEAKER

"SLOPING" BAFFLE-8" PREWIRED SPEAKER

Type A-124896. Nine-watt, 8-ohm speaker has 1.45 oz. Alnico V magnet. Screw terminals. Bonded corners. Recessed front. For use in average offices, classroom, reception room, hospital rooms. Hardware-size included in a coin envelope, for fast, easy mounting, 9x11x6". Wood-grain fabric. Walnut-finish enclosures. 973X1001. 4 lbs. 1-4......Each 16.75 5-Up......Each 15.00



PUBLIC **ADDRESS** SPEAKERS. **TRANSFORMERS**

Professional Quality PA Speakers. Ceramic magnet assemblies are permanently bonded with RF cured epoxy. Screw minals. 8-ohm impedance. SP Series, 45 ohms. Number in 's Type indicates speaker dia. Suffix W dual cone design.

Stock	Mfr's	Watts	Mag. I		Wt.,	EACH			
No.	Туре	Watts	Oz.		Lbs.	1-4	5-9	10-Up	
973-1115	SP3.5A1*	4	.68	1%."	3/2	4.82	4.22	4.01	
973-1050	PA8ECS	8	3.0	17/6"	11/2	9.07	8.32	7.92	
973-1052	PA8FC	10	5.5	23/4"	13/4	8.97	8.29	7.92	
973-1053	PA8FC-W	10	5.5	23/11	13/4	9.15	8.29	7.92	
973-1065	PA8JC-W	15	10.3	3"	23/4	11.47	10.66	9.95	

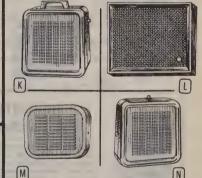
Low Cost Line-to-Voice Coil Transformers. Just select desired power (volume) level by changing transformer taps. So terminals. For 4, 8 or 16 ohm speakers. Mounting centers: centers; †2% centers; ‡2¾ centers. Wt. 1 lb.

Stock	Mfr's	Watt	Line	Imp.	E/	ACH
No.	Туре	Taps	Volts	Ohms	1-11	12-Up
973-1015 973-1016 973-1014	CV7010 CV7018 CV2510	5, 2.5, 1.25, .62, .31 10, 5, 2.5, 1.25, .62 18, 9, 4.5, 2.25, 1.12 10, 5, 2.5, 1.25, .62 5, 2.5, 1.25, .62, .31	70.7* 70.7† 25.0‡	16, 8, 4 16, 8, 4	6.45	4.40 5.70 5.75

HEAVY-DUTY SOUND COLUMN

Model SND-3. Heavy-duty sound column with six 8" speakers for 72-watt power capability. Mounting bracket. Responses 50-15,000 Hz. 120° horizontal dispersion. 8 ohms. 51x11x73/4". Excellent sound distribution qualities that are useful in commercial, educational and industrial applications. Short industrial applications. Shpg.

wt. 50 lbs. 973-1110. 1-4 Each 110.27 5-Up Each 99.25



CEILING AND WALL BAFFLE ACCESSORIES











SQUARE BACK BOX

Model E8S. Not Illustrated. Rust-proof. Designed with sound deadening compound. 95% sq. x 334" deep. Use with Model M8SW (left). Wt. 3 lbs. 973-1029. 1-5... Ea. 9.35 6-Up... Ea. 8.18

BI-DIRECTIONAL BAFFLE

Model M8BD. For larger area-per-speaker coverage. Ideal for corridors, shopping centers, shipping docks. Mounts on walf, ceiling, any flat surface or outlet box. Fits 8" speakers up to 4½" deep. 10"x5½". Sound radiates from front and back. Brushed aluminum finish. Wt. 2½ lbs. 973-1033. 1-5. Ea. 13.53 6-Up. Ea. 11.14

ABOVE WITH ALL-WEATHER SPEAKER

Model M8BD-SW. As above but pre-wired for convenience. 8" speaker designed for outdoor use. 30 watt peak. Color-coded leads pre-stripped to facilitate installation.

K HFOD-8 HI-FI PORTABLE PATIO SPEAKER. 8" speaker in steel case. Volume control. Carry It by handle or mount with screws. 35-19,000 Hz. 30 watts peak. 8 ohms. 25-ft. cable. 10 % x 10 % x 5 %". 6 1/4 lbs. 973-1030. 1-4. Ea. 17.95 5-Up. Ea. 12.40

WEATHERPROOF SPEAKERS

973-1030. 1-4. Ea. 17.95 5-Up. Ea. 12.40 In UBB-W SPEAKER. 8" speaker in walnut finish styrene case. Mounts on wall. 18 watts peak. 8 ohms. Has 70-V transformer with 5, 2.5, 1.25, 62, 31 watt taps. L-pad control. 10 %x13x6". Shpg. wt. 3 lbs. 973-1190. 1-4. Ea. 15.50 5-Up. Ea. 12.40

MOD-4 PATIO SPEAKER. Moisture resistant, 4" speaker. Alnico V magnet. Screw terminals. Steel case. Baked on finish. 8 ohms, 4½ watts. 4%,6×5%,6×2%,8". Wt. 1¹/₄ lbs. 973-1049. 1-4...Ea. 7.55 5-Up...Ea. 6.80

NOD-8 PATIO SPEAKER. 8" speaker in steel cabinet. Volume control. Slots for easy mounting. Connect the attached 55-ft. cable to hi-ft, radio or TV. Response: 40-15,000 Hz. 20 watts peak. 8 ohms. 10 ½x 10 ½x 5½ %. 6 ½, 4 lbs. 973-1048. 1-4. Ea. 15.00 5-Up. Ea. 13.50

F ROUND TRIM RINGS

Model M8RA. Aluminum. Mounts flush. For 8" speaker. Diameter 123/4". Use with baffle E8R. Less speaker. 3/4 lb. 973-1035, 1-5... Ea. 5.57 6-Up... Ea. 4.87

Model M8RW. As a bound by Model M8RW. As above but made of white steel. Can be repainted to match ceiling. Less speaker. Shpg. wt. 1½ lbs. 973-1040. 1-5... Ea. 5.57 6-Up... Ea. 4.87

E 5-PACK TRIM RINGS

Model M8RA-5. For 8" speaker 12" diam. Aluminum. Mounts flush w/ceiling. 3 3/4 lbs. 973-1036.........Package of 5 for 15.95

SPEAKERS & TRANSFORMERS

Model 70-8EC-A. Ready to mount. 8" speaker. 18 watts, 8 ohms. 70-volt transformer. Uses type MSRA grille. Wt. 2 lbs. 973-1270. 1-5. Ea. 14.35 6-Up. Ea. 12.91 Model 70-8EC-W. As above but with M8RW style grille (above). Wt. 2 lbs. 973-1272. 1-5. Ea. 14.35 6-Up. Ea. 12.91

G ROUND LOUVERED BAFFLE

Model M8RL. Brushed aluminum. Recessed louvers. Takes 8" speaker. Fits E8R enclosure. Less speaker. Wt. 2 lbs. 973-1037, 1-5. Ea. 10.85 6-Up... Ea. 9.75

ROUND LOUVERED BAFFLE WITH SPEAKER & TRANSFORMER

Model MSRL-ST. Pre-assembled, 12" dlam. brushed aluminum louvered baffle, 8" speaker, 18 watts, 70 V transformer, 2 bbs. 973-1038, 1-5. Ea. 14.56 6-Up., Ea. 13.07

SQUARE BAFFLE WITH

SPEAKER & TRANSFORMER

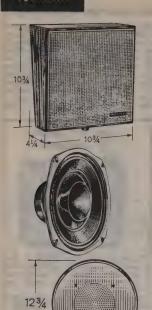
Model M8SW-ST. 8" speaker. 8 ohms, 18
watts. 70 volt transformer. 3 oz. ceramic
magnet. 10½" sq. baffle made of white
steel. Wt. 1½ lbs.
973-1046. 1-5. Ea. 12.42 6-Up. Ea. 11.19

H ROUND BACK BOX

Model E8R. Undercoated to prevent rust.
Jute pads plus sound-deadening compound. 11" overall dia. x 4½" deep. Fits
M8RA, M8RW and M8RL. Wt. 2½ lbs.
973-1028. 1-5. .Ea. 10.15 6-Up. . .Ea. 9.50

Shpg. wt. 4 lbs. 973-1034. 1-5..Ea. 20.40 6-Up..Ea. 16.35

Replacement Speakers



REALISTIC 8" SPEAKER & BAFFLE

Perfect PA Speaker or Extension Speaker

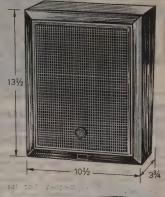
REALISTIC 8" SPEAKER SPECIAL

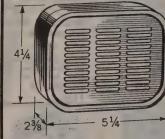
Excellent General-Purpose Speaker

FLUSH-MOUNT SPEAKER BAFFLE

- Aluminum Finish
- Takes 8" Speaker

Aluminum baffle for mounting 8" speaker in wall or ceiling. Aluminum finish gives a smart, functional appearance. Easy to install — for offices, schools, etc. Speaker not included. Wt. 1 lb. 910-7110. Type 40-1223





DELUXE WALL BAFFLE SPEAKER

- Acoustic Suspension
- 40-15,000 Hz

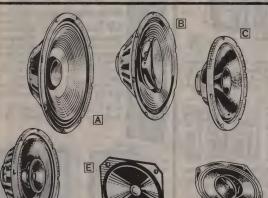
Walnut Wood

MOISTUREPROOF INDOOR/OUTDOOR SPEAKER

 Listen Anywhere — Car, Garage, Office, Shop, Loading Area

REPLACEMENT HI-FI SPEAKERS

Crisp, clean sound at low cost. Designed and made in U.S.A.



MODEL 40-1200 12" FULL-RANGE SPEAKER. Has internal dust seal that protects precision voice coil. Handles 30 watts power. Dependable ceramic-magnet construction. Features high-efficiency design with 50-11,000 Hz frequency response. Impedance, 8 ohms. Shpg. wt. 4½ lbs. 910-0021



REALISTIC REPLACEMENT OR **EXTENSION SPEAKERS**

High-quality American-made speakers put your music system, home radio, PA system or auto radio in top form. Rigid frame construction to maintain proper voice coil and magnet alignment. Powerful Alnico V magnets assure high sensitivity for efficiency approaching that of much costlier speakers. Buy in quantity and save—discounts as shown below.



Stock	Mfr's.	Size Watts	Ohms	Wt.	EACH				
No.	No. Type Size Watts Offins	Lbs.	1-5	6-11	12-49	50-Up			
910-0030 910-0032 910-0033	40-1203	4"	3 3 4.5	3-4 3-4 3-4	1/4	3.49			
910-0035 910-0036 910-0037	40-1206 40-1207	5″ 6″	5 5 4	3-4 3-4 3-4	3/4 1 1/4	3.59 3.99 4.39 3.59	10% Off 1st Col.	15% Off 1st	25% Off 1st Col.
910-0041 910-0042 910-0043	40-1213 40-1905	8" 6"	8 6	3-4 10/20/40 10/20/40	2 1 3/4	5.29 4.79 6.59	Price	Price	Price

ALLIED EXTRA-VALUE 8" SPEAKERS FOR PA AND REPLACEMENT USE



Built-right and priced-right 8" general-purpose speakers. Fine for music and paging systems, as well as many production line applications. All have high sensitivity for greater overall efficiency. Epoxy is used between plates and magnets—cured with RF heat for an indestructible bond. Shallow profile for easy in-wall mounting. Powerful barium-ferrite magnets with 1" diameter voice coils. Integral mounting facilities for transformers with 13½", 2" and 23½" centers. Internal dust seals protect critical close-tolerance voice coil gaps. Model 803W has separate high-frequency (whizzer) cone for higher treble response. 8 ohms. Mtg. dia., 7½", 2" Made in U.S.A.—available only from Allied.

Stock	Mfr's	Magnet	Peak	Response	Mtg.	Wt.,		EA	CH	
No.	Type	Oz.	Watts	in Hz	Depth	Lbs.	1-5	6-24	25-49	50-Up
973-1420	800	6	22	42-16,000	23/4"	21/2	7.65	10%	20%	30%
973-1422 973-1424	802 803W	10 '5	30	38-16,500 38-18,000	3" 1	23/4	8.25 8.58	Off	Off	Off

MINIATURE 8-OHM RADIO **SPEAKERS**



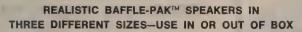
1 59

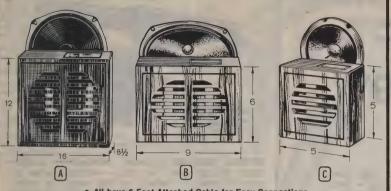
For Transistor Radios, Tape Recorders,

Alnico PM replacement speakers with very thin profiles to fit the tightest spaces possible. Exact replacements for most transistor radios, walkie-talkies and tape recorders. Also suitable for all types of electronic construction projects. Shpg. wt. ½ lb.

Stock No.	Туре	Size	EACH
910-0114	40-262	23/4"	1.59
910-0115	40-247	21/2"	1.59
910-0116	40-246	21/4"	1.59
910-0117	40-245	2"	1.59

334 • ALLIED





• All have 6-Foot Attached Cable for Easy Connections

Convenient Hang-up Tabs for Wall Mounting

• For Car Stereo, Public Address Systems, Extension

Our exclusive heavy-duty ceramic-magnet speakers in sturdy woodgrain cardboard baffle boxes that double as speaker enclosures. All have 6' cable attached. Convenient hang-up tabs for wall mounting. Use 5" or 6x9" for car stereo; 8" for PA system or extension speaker for TV, radio, phono or recorder. Perfect for home, schoolroom, car or office.

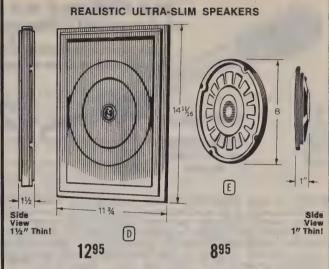
Speaker. 18 watts power handling, oz. magnet for bigger and better

sound. 910-7092. Type 40-1280.....Each 9.95

B 6x9" Speaker. Handles 18 watts power. Ideal for car stereo use. 910-2030. Type 40-1282.....Each 8.95

5" Speaker. Far better than an ordinary car speaker! Handles 15 watts, 3-oz.

910-2025. Type 40-1281......Each 7.95



14" Ultra Slim Speakers. Installs where no other can—table tops, flush doors . . . anywhere a compact speaker is the only solution. 40 watts, 30–20,000 Hz. 8 ohms impedance. 17/16/X113/4X1411/16". Excellent for use in PA system and for extensions peakers. extension speaker. 910-2042. Type 40-1344.....Each 12.95

8" Ultra Slim Speaker. Disc-shaped, lightweight, bl-directional, 8" diameter. 20 watts, 40-20,000 Hz. 8 ohms im-pedance. Very thin 1" deep—fits any 8" grille. Also installs where no other can—table tops, flush doors, etc. 910-2040. Type 40-1343. Ea. 8.95

FE-103 4" SPEAKER

995

 Ceramic Magnet for Fine Sound Acoustic Suspension

Ceramic magnet develops over 10,000 Gauss. 30-17,000 Hz. 15 watts. 8 over 10,000 Gauss. 30-17,000 Hz. 15 watts. 8 ohms impedance. For 280 cubic inch enclosures. See Bonus at right. 910-2010. Type 40-1197.

Each......9.95 Equalizer Kit. 910-2005. Type 40-808.

Each..................5.95



BONUS! Included directions from "Electronics lliustrated." For building sub-mini speaker system!

5" ACOUSTIC SUSPENSION **DIE CAST SPEAKERS**

1595

For True Hi-Fi Sound In Your Carl

30-20,000 Hz—peak performance! 2-lb. magnet structure.
1" voice coil, cloth roll. 8 hohms impedance. No fancy installation required...you do it yourself. Easily installs in seconds. Just hook to radio or stereo player, attach wires and you're ready for realistic sound.

910-2033. Type 40-1292.





HI-FI 8" PATIO SPEAKER

2495



POLY-PLANAR SPEAKER

8" speaker / baffle / transformer combina-tion. 10 watt rms. Slim styling for easy adapt-ability in most interiors where space is at a minimum and flush mounting may be the only solution. Weather-proof. 70.7 volt transformer. 670-1000. 1-5 Ea. 13.45

6-Up......Ea. 12.10



REALISTIC 70-VOLT LINE TRANSFORMER

10-watt primary. Taps at 10, 5, 2.5, 1.25 and .62 watts. Sec-2.5, 1.25 and .62 waits. Sec-ondary impedance, 4 or 8 ohms. For driving speakers at various power levels from the same 70-volt line. Simply change the transformer taps to achieve the power level you desire. Size: 1.6x1.6x1.0". Shpg. wt. 1½ lbs. 910-0013. Type 32-1031

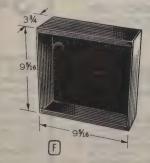


BAFFLES AND ENCLOSURES FOR 8" SPEAKERS

Designed for Simple Installation in Ceilings
 Omnidirectional
 Available With or Without Matching
 Speaker and Transformers

MODEL 193-8 SQUARE ENCLOSURE

- Fits Any 8" Speaker
 Weatherproof
- Undercoated for Durability
- Quality constructed enclosure that fits into a Quality constructed enclosure that fits into a decor and eliminates most space limitation problems. Practical thing about the enclosure is that it can be used with any 8" speaker... whether speaker is round, square, etc. Constructed of welded 20 gauge steel... assures enclosure is completely weather proof... perfect for outdoors. Enclosure is also undercoated as additional weather and rust-proof protection. 3\(^4\)x9\(^6\) inches —square. Shpp. wt. 1\(^4\) lbs. 923-6099. 1-4.... Es. 5.00 5-Up.... Es. 4.18 923-6099. 1-4.....Ea. 5.00 5-Up.....Ea. 4.18



BAFFLES FOR LOW CEILINGS





Microphones for Every Need



MODEL 33-1044 OMNIDIRECTIONAL CONDENSER MICROPHONE. High-fidelity mike delivers the high performance characteristics of condenser mikes lent frequency response, transient response and sensitivity. Omnidirectional sound pattern, 30-15,000Hz frequency response, foil diaphragm and "pop" filter make this microphone suitable for group vocals, instrumental combos and public address systems. Impedance, 600 ohms (usable with inputs up to 20,000 ohms). Windscreen protects from wind and "pop." Powered by "AA" penlight battery with life of 10,000 hours. Desk stand and floor stand adapter included.

MODEL 33-1045 CARDIOID CONDENSER MIKE. Same as above, but with unidirectional sound pickup. Desk stand and floor stand adapter included.

REALISTIC ALL-PURPOSE MIKES

TYPE 33-990 PENCIL-THIN MICROPHONE

TYPE 33-992 CARDIOID DYNAMIC MIKE

TYPE 33-985 "HIGHBALL-2" MIKE

TYPE 33-1040 CASSETTE RECORDER MIKE

An excellent slim-styled dynamic cardioid directional microphone for use with portable cassette or reel-to-reel tape recorders. Has switch to start or stop recorder remotely. Frequency response, 100-11,000 Hz. Impedance, 1000 ohms. Complete with desk stand. Cable with mike and start-stop plugs.

TYPE 33-928 DYNAMIC LAVALIER MIKE
Replacement tape recording mike of lavalier design. This slender, high-impedance mike can be used as a lavalier, hand or desk model. Impedance of 50,000 ohms. Compact, lightweight design featuring On-Off switch. Especially desirable for use with cassette or 8-track tape recording equipment. Gray molded case, neck cord, stand, 54" shielded cable. 4x1".
910-0024. Shpg. wt. 2 lbs.

TYPE 33-1047 OMNIDIRECTIONAL CONFERENCE MIKE

Excellent for recording meetings, lectures or parties. Desk stand for convenient use on table or other flat surfaces. Compact, lightweight, attractive design. 400 ohms. 5-ft. cord with mini-plug.

910-8015 919-8015 99-

REALISTIC "HIGHBALL" DYNAMIC CARDIOID MIKE

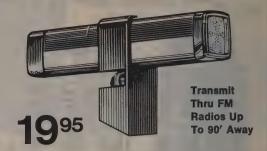


Wire Screen Eliminates Wind, Breath Noises-Cuts "Pops"

Dual Impedance of 50-250 and 50,000 Ohms

TYPE 33-983. Deluxe professional mike features smooth wire screen that eliminates troublesome wind and breath noises while cutting "popping" and "booming." Also suppresses feedback, reduces echo. Response, 50-15,000 Hz. Has On-Off switch. Impedance, 50-250, 50,000 ohms. Cannon body connector. Includes 15-ft. cable with universal plugs, screw-in 1/4" phone plug adapter; MCIF Amphenol plug. Made in the U.S.A. 910-0016. Wt. 5 lbs.

APOLLO FM-91 WIRELESS MIKE



MODEL 33-1048. Wireless microphone broad-casts through any FM radio — without wires or special hookup. Perfect on the stage, in home or factory, as a portable paging system. Operates on 88-92MHz using a battery operated all-silicontransistor circuit. Two-way stand for desk or stand mounting. Tuning control. 9-volt battery. 75/6x11/4x11/4.".

910-8003. Shpg. wt. 3 lbs. Each 19.95

RUBBER-ISOLATED MICROPHONE WITH UNIDIRECTIONAL PICKUP



MODEL 33-1041. Unidirectional dynamic cardioid model 33-1041. Unidirectional dynamic cardiold microphone is excellent for vocal, public address and recording use. "Quick-change" selection of 600 or 20,000 ohm impedance. Has on-off switch, mesh screen "pop" filter, universal connector. Frequency response, 85-11,500 Hz. Comes complete with ½" phone plug, 15-foot microphone cable, and stand adapter. Shpg. wt. 4 lbs. 910-8004 Each 24.95



Impedance Plug With Stand Adapter

MODEL 33-1042. Dual-impedance dynamic cardioid microphone for general purpose and recording use. 600 and 20,000 ohms. Frequency response, 70-13,000 Hz for excellent music or voice reproduction. Wire mesh filter eliminates "squeals" and "pops." Built-in on/off switch with "lock-on" position. Includes \(^1/4\)" phone plug, 15foot microphone cable and stand adapter. Shpg.

336 • ALLIED

33-985

33-1040

33-928

33-1047

"UNIDYNE III" DYNAMIC MIKES

Cardioid pickup pattern; dynamic element with 50-15,000 Hz response. Impedance: 150 ohms or Hi-Z. Output: low-Z, -57 dB; hi-Z, -55 dB. Chrome and black finish. Size: 11/4" dia. x 6%6" long.

MODEL 545S. Mounted on lifetime swivel with on-off switch. Detachable 15-ft. 3-conductor shielded cable with male 4-pin connectors. Wt. 1 lb. 944-0546. Each 64.20 5-Up. Each 57.78

MODEL 545. For stand or hand use. Detachable 15-ft. 3-conductor shielded cable with 4-pin male connectors; swivel adapter. Shpg. wt. 1 lb. 944-0545.....Each 66.60 5-Up.....Each 60.21

MODEL 545SD. For stand or hand use. Has magnetic reed-type on-off switch built into case, with built-in locking plate. Solderless impedance change. Detachable 15-ft. 2-cond. shielded cable with female 3-pin connector; swivel adapter. Wt. 1 lb. 944-4615.....Each 64.35 5-Up.....Each 57.95

MODEL 545L. For lavalier use. Supplied with 20-ft. permanently-attached miniature 2-conductor shielded cable, and lavalier cord. Wt. 1 lb. 944-4616.....Each 55.35 5-Up.....Each 45.35

"UNISPHERE I" DYNAMIC MIKES

Superb feedback control and uniform cardioid pattern, for difficult PA applications. "Pop-proof" wire mesh screen protects against wind blasts and explosive breath sounds. Chrome/black. Response: 50–15,000 Hz. Dual impedance: 150 ohms or hi-Z. Output: low-Z, —57 dB; hi-Z, —54.5 dB. 2" dia. x 61/4".

MODEL 565SD. For stand or hand use. Magnetic reed-type on-off switch built into case, with locking plate. Includes detachable 15-ft. 2-conductor shielded cable with female 3-pin connector on microphone end; swivel adapter. Shpg. wt. 2½ lbs. 944-4617.....Each 70.95 5-Up.....Each 63.85

DYNAMIC LAVALIER MICROPHONES

MODEL 570S. Special "shaped" response for superior

UNIDIRECTIONAL DYNAMIC MIKES

- Assures Superior "Pop" Rejection
- Shock-Mounted Cartridge
- 90° Swivel Adapter Included

MODEL 5885A. Cardioid pickup pattern. On-Off switch. Response: 80-13,000 Hz. Output: -59 dB. High impedance. With 15-ft. one-conductor shielded cable having 3-pin female audio connector. 2" dia. x 6½" I. Wt. 2½ ibs. 944-4603... Each 40.90 5-Up.... Each 36.80 MODEL 5885B-CN. Low impedance version of 588SB, but with 3-pin male connector on equipment end of 15-ft cable.

but with 3-p 15-ft. cable.

944-4606..... Each 43.75 5-Up..... Each 39.40



570





MODEL 515SBG "UNIDYNE B" MICROPHONE. Low impedance cardioid. On-Off

Model 515SB-G18. As above, with gooseneck, 51" cable. 944-0536. Shpg. wt. 15 oz.............Each 33.50 5-Up..............Each 30.15









6" 202 Bartis 14 MODEL 202

MODEL 430 CONTROLLED MAGNETIC
Omnidirectional, dual-impedance, controlled magnetic microphone. Excellent
for PA paging; can be used both indoors
and outdoors. Frequency response: 60–
10,000 Hz. Impedances: 150 to 250 ohms
and high impedance. Output: -52 dB.
Black and satin chrome finish. On-off
switch and swivel adapter. 15-ft. 3-conductor cable. Less base. 634" x 134".
944-0430. 2½ lbs. Each 30.60 5-Up.. 25.80

LOW-PRICED MODEL 575S

Omnidirectional high-impedance dynamic, 40-15,000 Hz. Built-in filters reduce voice "pop". Output: -56 dB. Black satin. Slide to talk locking on-off switch, stand dapter, lavalier assembly. 7' shielded cable. Less S-38B base (see below). Size: 43/4" x 11/4". Shpg. wt., 1 lb. 944-0576. Each 19.90 5-Up.......16.50 944-0577. Model 575SB. Low Z. Each 18.00 5-Up.

. Each 15.00

Ceramic, noise-canceling microphone, ideal for wide applications in CB, Radio and Amateur communications. For use where high noise levels may cause problems in clear voice transmission. Frequency response: 200–4000 Hz. High impedance. Output: —50 dB. Press to talk switch and mounting bracket. 5-ft. coiled cable. 4" x 234" x 156". Shpg. wt. 1 lb. 944-0202. Each 16.10 5-Up. 13.80

MODEL 404B

Controlled-magnetic press-to-talk mike for citizens' band, radio, many other applica-tions. Response: 200-8000 Hz. 150-250 ohms. Output: -52 dB. Hand-held. High-

onms. Output: —32 dB. Hand-neid. High-impact gray case. With mounting bracket. 5½-ft. cord. 1 lb. 944-0405. Each 27.25 5-Up......22.80 944-0406. Model 404C. Same as above, but for high impedance. Output level, —54 dB. Each.........27.25 5-Up......22.80

MICROPHONE STANDS AND ACCESSORIES

MODEL A95F LINE MATCHING TRANSFORMER. High quality transformer makes it feasible to run a microphone line from a low-impedance mike to a high-impedance amplifier. Matches microphone rated 50 or 150 ohms to high impedance inputs. Built into a compact, sturdy magnetically-shielded case; has female XL-3-12 type input and MCIM type output plugs installed. Offers added versattlity to the microphones shown on this page. Shpg. wt. 10 oz. 944-4610. Ea. 16.70 5Up. Ea. 15.00

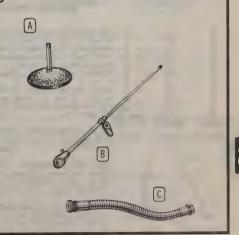


MODEL A95FP LINE MATCHING TRANSFORMER. Matches mikes of 50 or 150 ohms to high impedance inputs. Female Cannon XL-3-12 type input with mating connector supplied. High impedance output terminates in attached ¼" male phone plug with locking ring. 10 oz.

ring. 10 oz. 944-4611......Each 18.20 5-Up......Each 16.35

- REALISTIC 33-343 BABY BOOM FLOOR STAND AT-TACHMENT. Attaches to any standard mike floor stand for professional "studio" results. 31" long. %"-27 thread. 910-0131. Shpg. wt. 8 lbs...... Each 7.95
- REALISTIC 33-330 FLEXIBLE 13" GOOSENECK. Connects to standard mike; ends have %"-27 thread.

REALISTIC 33-371 MICROPHONE STAND ADAPTER. (Not illus.) Converts mikes quickly from hand to stand use. Styrene; %"-27 thread.



Sound Systems, Mike Stands, Headset Radios

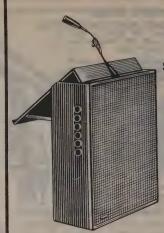


AUDIO

SOUND PAK II SOUND SYSTEM

- Electronics Built Right into the Master Sound Column Speaker
- No Installation—Sets **Up Quickly**
- Simple to Operate-**One Control**
- No Feedback—No Echoes
- Trouble Free—Electronic Overload System; Solid State Circuitry

Model SP II. Sound Pak II sound system integrates speakers, electronics, microphone, controls, installation, and engineers them so precisely, you get the finest performance possible. The system consists of a master Sound Director column speaker with built-in electronics, a remote column speaker, microphone, stand, and 100' heavy duty wire to connect speakers together. No installation. Just plug in master column, mike and connect remote column speaker Column speakers hang easily. Can be quickly removed for storage. One volume control. Electronics automatically adjust volume for different voice levels—won't overload, distort sound. No feedback—filters out audio characteristics. Covers room to 150'. Has plug-in for second mike and phonograph, tape, etc. for background music, remote paging or two part participation. Power: 14 watts rms. For 115 VAC. 523-3000. Shpg. wt. 37 lbs.



COMPLETE PORTABLE LECTERN SOUND SYSTEM

- Sets up in Just 30 Seconds
- Compact—Just 7"x16"x21" in Carrying Case
- Amplifier Operates Off One 12 V Battery or 115 V AC House Current

"SURE-GRIP" **FLOOR STANDS**

- Extended-Length Clutch Body for Full-Hand Grip
- Self-Leveling
 Base Pads and
 "Anti-Tip" Points

"Anti-Tip" Points
33-320. Gray cast base. Excellent for clubs, hotels, etc. Velvet-smooth "suregrip" clutch adjusts from 35" to 63". Inner-lined with bakelite to prevent jamming, slipping. Two-section, chrome-plated tube. 10" dia. base with leveling shock absorber pads and anti-tipover bumpers. Standard %"-27 threads connect to most microphones.
910-0053. 10 lbs... Ea. 13.95
33-321. Chrome Base. Similar to above, but has all chromed finish. 34" to 63" clutch adjustment. %"-27 threads.

910-0054. 13 lbs...Ea. 15.95



PORTABLE HEADSET RADIOS



DO YOUR OWN THING WITH THIS AM RADIO THAT GOES WHEREVER YOU GO

FM-AM RADIO LETS YOU HEAR THE PROGRAMS YOU WANT ANYWHERE

MICROPHONE FLOOR STANDS, DESK STANDS AND ACCESSORIES



33-320

DS-7 General-purpose desk stand with adjust. "Velvet Clutch". Iron base has gun metal shrivel finish; pads prevent damage to desk. Adjusts from 8"-13". Base dia., 6"; tube height, 4". Chrome finish. \%"-27 thread. Shpg. wt. 3 lbs. 730-0307. 1-4. ... Each 12.45 5-Up. ... Each 9.80



- MODEL AD12 MIKE BASE FLANGE, Male. Standard %"-27 thread. Shpg. wt. 6 oz. 730-0012.........Each 1.60 5-Up.........Each 1.28
- MODEL AD8 6" EXTENSION ROD. %"-27 thd. 730-0008. Wt. 6 oz... Each 1.45 5-Up.. Each 1.16
- MODEL SO1 SNAP-ON MIKE ATTACHMENT. Standard %"-27 thread. Shpg. wt. 1½ lbs. 730-0451......Each 5.15 5-Up......Each 4.12
- © CS-33 COLLAPSIBLE FLOOR STAND. Fully demountable stand with full grip "Velvet Action."
 Can be collapsed to 22½", making it ideal for fixed and portable use. Base legs remove and are self-leveling. Adjusts from 26 to 64". Chromed. 20" base diameter. \(\frac{\psi}{2} 27\) thread. Shpg. wt. 4 lbs.
 730-0233..... Each 16.10 5-Up..... Each 14.45

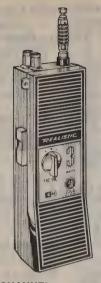




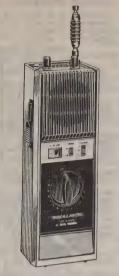
338 • **ALLIED**

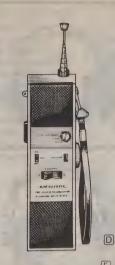


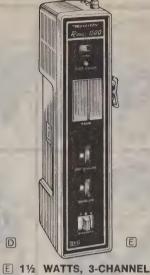




B







A THREE-WATT, 3-CHANNEL

B FIVE-WATT, SIX-CHANNEL

Powerful 5-watt output. FET front-end for added sensitivity. Integrated circuit IF and 455 kHz mechanical filter for greater selectivity. Separate speaker and ceramic microphone. Adjustable squelch, noise limiter, automatic gain control, push-pull audio output. Battery/RF indicator. Center-loaded telescoping antenna. Can be powered by car cigarette lighter Jack. 9x2%x2%". Complete with carrying case, 10 "AA" batteries, and plug-in Channel 11 crystals. Use alkaline or NiCad batteries for longer life. 910-0063. Type 21-134. 5½ lbs.........Each 89.95

C FIVE-WATT, 23-CHANNEL

EXTRA CRYSTALS

Extra crystals let you transmit and/or receive on more than one channel. Specify channel, receive or transmit function, and make and/or model number of your walkietalkie or transceiver.

910-C4507. 1-5..... Each 2.49 6-Up..... Each 1.99

"MINI-6B" 6-CHANNEL MOBILE CB TRANSCEIVER



23-CHANNEL BASE/MOBILE TRANSCEIVER

With crystals for all 23 channels. Dual conversion receiver with mechanical filter. Digital clock timer turns on unit when desired, and starts buzzer alarm. Dual SWR/S-RF power meters, RF and mike gain controls, PA capability, noise limiter, range boost, 3-position delta-tune switch, on air and modulation lights. Transmitter has 4-watt output. Plug-in mike, coiled cord. Mobile bracket, AC and DC cables. Sensitivity, ½ microvolt. For 120 VAC or 12 VDC neg. gnd. 5 x 14% x 9".

910-4425. Type 21-151...Each 229.95



120 VAC WALKIE-TALKIE POWER SUPPLY AND BATTERY CHARGER

Powers Realistic 1½ to 5-watt walkie-talkies from 120 VAC. Will simultaneously charge 12 to 15-volt nickel-cadmium battery packs at rate of 40 milliamperes per hour. Lets you get extra use from your walkie-talkie as a base unit, without draining batteries. U.L. Listed. 910-4430. Type 21-515. Each 19.95





F ONE-CHANNEL 100-MW WALKIE-TALKIE

G TWO-CHANNEL 100-MW WALKIE-TALKIE

FI DELUXE TWO-CHANNEL 100-MW WALKIE-TALKIE

Features separate speaker and mike for best reception and transmission, push-pull audio for clear tone, battery condition meter, "beeper" to signal other stations, earphone jack, superhet receiver, side-mounted on-off/volume control, telescoping antenna. With Ch. 11 crystals, wrist strap, 9-V battery. Order crystals for other channel above. 81/8 x 21/4 x 17/6".

910-4400. Type 21-111.

Each 26.95

Communications and Hi-Fi Headphones







SOUND POWERED HEADSET/MIKES

Transmits to 30 miles. Up to 6 headsets may be connected for shorter distance. Made portable by plugging 2 headsets into SXJ-409 jumper cord. Have 2-cond. 30" cords, PJ-055 plugs.

OVER THE HEAD MODELS

Stock	Type	Fia	Mike	Noise	EA	СН
No.	Type	rig	MIIKE	Area	1-4	5-Up
535-0240	15SMA	Α	Noise Sh'd	100-135	142.00	120.00
535-0185 535-0340 535-0291	720SBA	C	Boom Boom Single Ear	80-100 0-80 0-80	138.00 79.50 49.50	115.00 66.25 41.00

BEHIND						
535-0380	800SBA	D	Boom	80-100	138.00	115.00

SXJ-409-12 JUMPER CORD. 12 ft. ½ lb. 535-0059... Each 13.40 5-Up... Each 11.15 SX-334-12 EXTENSION CORD. #88 phone jack one end, PJ-055 phone plug other. 12 ft. 535-0012... Each 14.00 5-Up... Each 11.65 J-2 JACK PLATE. Jacks with weatherproof covers are mounted on a standard outlet faceplate. ½ lb. 535-0040....Each 11.00 5-Up.....Each 7.70

SOUND POWER APPLICATIONS

15 Series	100 to 140 dB High Noise	Jet noise, drop forge, punch press.
10 Series	80 to 100 dB Medium Noise	Auto. screw machines, construction.
700 Series	0 to 80 dB Low Noise	Office machines, computers, studios.

MODULAR COMMUNICATIONS SYSTEM USING POWER SUPPLY

Use Carbon headsets only. A 1 to 8 intercom headset system requires the following: 1 24-V Power Supply Model 2PS-24 1 Model 2LA500 Line Amplifier 8 Model 3S-V Headset Station 8 Carbon Headsets of your choice

CARBON OVER THE HEAD MODELS

Stock	Tuna	210	Balka	Noise	EA	CH
No.	Type Fig. Mike		PRING	Area	1-4	5-Up
535-2000 535-2010			Boom Above, ear		116.75 82.50	96.75 62.50

INTERCOM MODULES FOR CARBON HEADSETS

Model 2LA-500 Line Amplifier. Used for installa-tion with from 2-8 headset stations (Model 3S-V). Input: 1000 ohms. Output: 500 mW, 26 dB voltage

535-2060. 1-4......49.00 5-Up......37.00

Model 2PS-24 Power Supply. Well-regulated supply for intercom use. On-off switch. Pilot light. 535-2070. 1-4......110.00 5-Up.......98.00

IMPEDANCE SELECTION CHART FOR HEADPHONES

Impedance	4Ω	4-16Ω	8Ω	3.2-20Ω	100Ω	500Ω	600Ω	600Ω	1000Ω	2000Ω	2000Ω
Stock Nos.	968-0150	949-8700 948-8710	706-9001 968-0185	968-0136 968-0175	706-9002	968-0135	968-0182 968-0103 968-0105	968-0152 949-8702 949-8700	968-0137	968-0115 968-0130 968-0120	968-0143









ohms. Dynamic mike 100-8000 Hz, 150 ohms. 5' cord, 1/4" plugs.

62185 PERSONA-PHONE

For individual listening in 70V, 25V or 8-ohm systems. Has transformer, 2 earsets (each with control), 5' coil cords. 434 x31/8 x21/21".Ea. 41.75 5-Up......Ea. 35.70

WIDE RESPONSE COMFORTABLE **HEADSETS** S

AVIATION/MARINE HEADSET

MODEL AV-NS-7. Special noise-shield for maximum intelligibility despite elevated noise level in hi noise areas. External noise attenuated to 50 dB. Lets you listen for hours without strain. Can be worn comfortably with glasses. Contoured foam earcushions. Response, 10–15,000 Hz. Impedance, 600 ohms. 10 ft. retractable cord, phone plug. Wt. 3 lbs. 949-8702......Each 55.60 5-Up......Each 45.00

HEADSET FOR LANGUAGE LABS

MODEL AP-S-2. Deluxe, lightweight. For prolonged use in language labs and communications. Soft, vinyl-covered foam earcushions. Frequency response is 80–12,000 Hz. Factory connected for hi-impedance 600-ohm output. Leads may be changed to 4–16 ohms. With 7 ft. 4-conductor cord, standard ¼" phone plug. Ship. wt. 3 lbs. 949-8700......Each 28.00 5-Up......Each 25.95

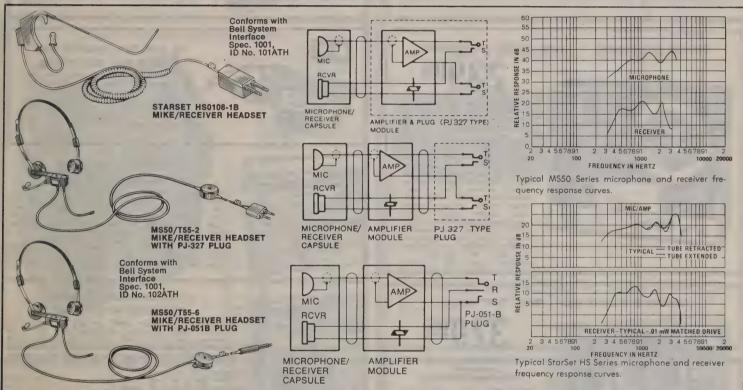
"COMMUNICATOR" HEADSET

20



- Command and Control
- Telephone
- For Aircraft Control Towers
- Commercial Mobile and Portable Radio Communications
- TV Cameramen and Radio Stations
- Hands-Free Operation
- No "Headset Fatigue"
- Can Be Worn with Glasses





COMMUNICATIONS HEADSETS OFFER EFFICIENCY, SAFETY, AND COMFORT

Ultra-lightweight quality communication headsets for telephone, dispatchers, portable and mobile radio, television cameramen, paging and sound systems. Offer great clarity and intelligibility. Lightweight design eliminates fatigue; extremely soft, chemically treated ear-tips assure maximum comfort and hygiene. Response: 300-3000 Hz. Headset with headband (MS50 models)

weighs less than 2 ounces; without headband (StarSet), less than 1 ounce. Both models can be attached to eyeglasses. Both mike and receiver consist of controlled reluctance elements within the capsule housing. Supplied with a set of six earpieces of various sizes, tinsel cord and zippered case. Model MS50/T55-6 can be used with intercom systems.

SWITCHBOARD TYPE HEADSET—PJ327 PLUG

Model MS50/T55-2. Replaces carbon type headsets. Mike amplifier output at 50 ohms, 112 mV. 300-ohm receiver requires 0.1 mW input for 98 dB SPL. Operates at 4.4 VDC, 100 mA. 10' coiled cord, PJ-327 plug. 16 oz. 888-4409. 1-4 Ea. 81.45

DYNAMIC 3000-OHM HEADSET WITHOUT PLUG

..... Ea. 76.64

Model MS50-59. 3000 ohm mike has 1.55 mV output. 600-ohm receiver. 60" cord. 14 oz.

888-4402. 1-4 Ea. 59.95 5-9 Ea. 53.96 10-24 Ea. 50.96 25-Up Ea. 47.96

SWITCHBOARD TYPE HEADSET-PJ051B PLUG

DYNAMIC 150-OHM HEADSET WITHOUT PLUG

Model MS50-60. 150-ohm mike has 0.275 mV output. 600-ohm receiver. 60" cord. 14 oz. 888-4403. 1-4 Ea. 59.95 5-6 Ea. 53.96 10-24 Ea. 50.96

STARSET ULTRA-LIGHT AMPLIFIED HEADSET

Model HSO108-1B. Ultra-compact 1-oz. headset rests over the ear. No headband required. Mike amplifier built into PJ-327 two-circuit plug has 100 mV ouput into 50-ohm resistive load. 300 ohm recvr. 10' cord. 18 oz. 888-4400. 1-4 Ea. 115.00 5-9 Ea. 104.25 10-24 Ea. 98.45 25-Up Ea. 92.65

DYNAMIC MIKE-ONLY HEADSET-3000 OHMS

Model MS40-4. For sound system, radio console, dictation. Output, 1.55 mV. 60" cord with solder leads. 13 oz. 888-4401. 1-4 Ea. 44.95 5-9 Ea. 42.70 10-24 Ea. 40.50 25-Up Ea. 38.50

DYNAMIC MIKE-ONLY HEADSET-150 OHMS

Model MS-40-5. For sound system, radio console, dictation. Output, 0.275 mV. 60" cord with solder leads. 13 oz. 888-4405. 1-4 Ea. 44.95 5-9 Ea. 42.70 10-24 Ea. 40.50 25-Up Ea. 38.50

DISPATCHER/CONTROLLER HEADSET WITH PTT

BNS-1 BACKGROUND NOISE SUPPRESSOR FOR MS50 HEADSETS.
Slips over end of voice tube.
888-4416. Ea. 8.75 4-Up. .Ea. 7.00

Contact Allied Electronics for Larger Quantity Price Breaks

ALLIED · 341

Realistic® Tape Recorders and Radios



3-PIECE STEREO 8-TRACK PLAYER

- Two Wide-Range Speaker Systems
- Play Your Car Tapes at Home, Too!
- Phono and Tuner Inputs
- Walnut Finish Wood



MINNISETTE-II ULTRA-COMPACT PORTABLE CASSETTE TAPE RECORDER

- Fits in Pocket
- Plays Up to 2 Hours

Built-in Mike

1/2 lb. ...

DELUXE THREE-HEAD, 7" REEL STEREO TAPE DECK

DISCRETE 4-CHANNEL 7" REEL TAPE DECK



- Records Sound-on-Sound for Special Audio Effects
 Tape and Source Monitoring
 2 Level Controls,

Model 999B. Perfect system "add-on." Four-track deck has three heads so you can add voice, background or accompaniment to previously recorded tapes. Has mike jacks for recording stereo "live." Head-phone jack, record safety interlocks, instant speed change switch, pause control, 4-digit tape counter. Single-knob control for Stop, Play, Fast Forward, Rewind, Pause. Separate AC onoff switch. Walnut wood cabinet. 16 x 131½ x 7%". 120 VAC.
910-1130. Type 14-973...239.95 Model 999B. Perfect system 910-1130. Type 14-973....239.95

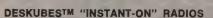


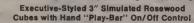


- Records/Plays Stereo or
- Quadraphonic

 Automatic Shutoff

Model 494. For use with the finest 4-channel or 2-channel components. Records four discomponents. Records four discrete inputs for playback through four separate speakers, makes "live" recordings with exciting realism and dimension never before possible. Four VU meters and level controls. Three heads. Monitor button. Master level control, preamp level controls for front and rear. Bias switch for use of low noise tape. Three speeds. Size, 16 x 14½ x 65%". 120 VAC. 910-1135. Type 14-974... 329.95 910-1135. Type 14-974....329.95









12 VDC CAR ADAPTER FOR RADIOS AND RECORDERS



PORTABLE CASSETTE RECORDER/FM-AM RADIO



ULTRA-COMPACT CASSETTE RECORDER WITH FM/AM



BATTERY/AC CASSETTE RECORDER



EASY-TO-READ AM/FM DIGITAL CLOCK RADIO

- Wake to Radio or Buzzer
- Flip-Type Numerals
 Snooze Bar...Sleep Switch
 24-Hour Alarm Settings

FLASHTUBES AND ACCESSORIES FOR INDUSTRIAL USE















HD-1

STROBOSCOPIC FLASHTUBES

U-35 Series. Non-polarized connections. 300-600 VDC. 20 joules/flash, Av. wt. 5 oz. 726-0900. U-35-B. With trigger band, base mount. 1-9.. Each 11.29 10-Up.. Each 10.17

726-0920. U-35-T. With trigger band, no base. 1-9..... Each 15.89 10-Up..... Each 9.57

726-0930. U-35-0. No trigger band or base.
1-9....Each 14.87 10-Up....Each 8.96
726-0910. U-35-BS. Base, trigger band, silver stripes to facilitate triggering.
1-9....Each 11.90 10-Up....Each 10.72

H-88 Series Heavy-Duty. Heavy-duty signal, stroboscopic, or photographic use. 8 oz. 726-0440. H-88-T. With trigger band. 1-9..... Each 12.88 10-Up..... Each 11.60

726-0430. H-88-B4. 4-pin plug-in base. 1-9.....Each 16.50 10-Up.....Each 14.85

FLASHTUBE ENGINEERING MANUAL

726-0100. Vol. II. Strobe design and theory. 20 pp...... Ea. 3.35

REFLECTOR ASSEMBLY

ARA-400-S-H-88-TP4. For use in stroboscopes, wheel balancing equipment, photography. Has trigger coil; specular finish for applications where "hot spot" is required. Max. input 80 joules. Operates at 350-600 V. H-88 flashtube adjusted to 50° beam spread. Repetitive flashing: 60 per minute, 10 joules/flash; 100 per second, 1 joule/flash. 4732" dia. x 376" dp. 4 oz. 726-0220. 1-9. Each 27.50 10-Up. Each 24.75

PYREX-COVER FLASHTUBES

HD-Series. Ultra-high efficiency. 6 oz. HD-1. Max. input, 60 joules at 450 V. 726-0400. 1-9. . Each 14.65 10-Up. . Each 13.20 HD-2. Max. Input, 120 joules at 450 V 726-0410. 1-9. Each 18.30 10-Up. Each 16.50

TRIGGER TRANSFORMERS

MT-55 IRON CORE TRANSFORMER

Iron core trigger transformer for use with HD flashtubes. Output, 24 kV (discharge 400 V at .5 μ F); 12 kV (discharge 180 V. at .2 μ F). % diameter x 2". 4-lead output. 1 % 02. 726-0600. 1-9. . Each 10.89 10-Up. . Each 6.54

ST-25 AIR CORE TRANSFORMER

Air core trigger transformer for H-88, U-35 flashtubes. Output: 7 kV (discharge 300 V at 2 μ F); 4 kV (discharge 180 V at .2 μ F). ½" diameter, ¾" long. ½ oz. 726-0700. 1-9. . Each 5.39 10-Up. . Each 3.24

"MINI" POCKET WEATHERADIO®



- Provides Instant Weather **Reports Wherever You Go**
- Tunes Right In Your **Shirt Pocket**

No larger than a pack of cigarettes, the "Mini" cigarettes, the Weatheradio fits and tunes right in your shirt pocket! Take instant weather reports with you wherever you go-great for campers, sportsmen, pilots, boaters, farmers. Top-mounted controls — no need to remove from your pocket. Continu-ously monitors National Weather Service broadcasts on 162.40 or 162.55 MHz. Telescoping antenna, wrist strap. 3¾ x 2½ x 1½". With 9-volt battery. 910-0190. Type 12-162 15.95

CAR WEATHERADIO® CONVERTER



- · Hear Weather Reports in Your Car-Instantly
- Plays through Your AM Radio-Easy Hookup

Get National Weather Service broadcasts on 162.40 or 162.55 MHz in 65 localities throughout the United States. Simple to install and use. Tune 1400 kHz on your AM radio, press "Push Weather" button on tuner for instant weather — anytime! 12 volt positive/negative ground. 1½ x

910-0196. Type 12-1371......24.95

WEATHER ADI

WEATHERADIO®-THE "TALKING BAROMETER"

3" CUBE-FOR HOME OR OFFICE

- Your 24-hour Hotline to Weather Reports and Forecasts
- Preset Controls
- Rosewood Finish

The original Weatheradio—for desk, den, countertop, office. Preset the recessed volume and fine-tuning controls just once, then press the Play-Bar for instant weather—anytime! Monitors continuous National Weather Service broadcasts on 162.40 or 162.55 MHz in 65 cities in the continental U.S., Hawaii and Alaska. Top-mounted speaker, telescoping antenna. Complete with 9-volt battery. 910-0192. Type 12-165.....

AM/FM/INSTANT WEATHER TABLE RADIO



Hear your favorite AM-FM station or weather reports from the National Weather Service on 162.40 or 162.55 MHz — instantly. Pre-tune each band using thumbwheel controls, then press the Play-Bar for instant listening. Glide-Path tone and volume controls. Built-in FM antenna, 3" speaker, earphone jack, pilot light. Walnut finish base, non-skid feet. 3 x 91% x 51/4". For 120 VAC. U.L. Listed. 910-0194. Type 12-688......49.95

Recording and Video Tape Accessories

RECORDING AND PHONE **ACCESSORIES**



A REMOTE FOOT SWITCH

B 50-FT. EXTENSION CORD

C TELEPHONE PICKUP COIL

D PRECISION TAPE SPLICER

Holds tape securely while you're making splices. Cuts and trims tape. %" splicing tape included. Shpg. wt. 1 lb. 910-0107. Type 44-770.......................Each 3.49

E TAPE END CLIPS

F REEL-TO-REEL TAPE SPLICER

TREMENDOUS SAVINGS

ON PRIVATE LABEL BULK PURCHASES ON ALL TYPES OF CASSETTE TAPE

See your Allied Electronics salesman or call your nearest Allied Electronics branch for

MYLAR RECORDING TAPE

*TENSILIZED MYLAR BASE. Pre-stretched for uniformity after re-peated playings. For professional and critical recordings if thin 1.0 and 0.5 mil tapes are used.

†MYLAR BASE. Extra-strength DuPont "Mylar" film base. Thin tapes yield 50% (1.0 mll) or 100% (0.5 mil) greater record/play time than standard 1.5 mll tapes.



Stock No.	Type No.	Reel Size	Feet	Mil	Wt., Lbs.	EACH
910-8810	*44-733	23/8"	300	0.5	1/4	.79
910-0070	†44-734	3"	225	1.0	1/4	.69
910-0073	†44-753	5"	900	1.0	3/4	1.79
910-0074	†44-736	7" /	1200	1.5	3/4	1.99
910-0075	†44-754		1800	1.0	11/2	2.79
910-0077	*44-766		3600	0.5	11/2	5.99

ECONOMY RECORDING TAPE

DURABLE 1.5 MIL MYLAR

Perfect for school and language lab use. DuPont Mylar.

Stock No.	Type No.	Reel Size	Feet	Wt., Lbs.	EACH
910-0086 910-0087	44-755 44-1085	7" '* 5" :	1200 600	3/4 1/4	1.49

EXT Bought in qu	RA-LENGTH 18 antity from Ar	00-FT. 1 nerica's	MIL POL' No. 1 man	YESTER ufacture	er.
910-0088	44-1018	. 7"	1800	1/2	1.95
DOUB	LE AND TRIPL	E PLAY	D.5 MIL PO	LYESTE	R
910.0093	1 44-1060	7"	2/00	1	2 99

REALISTIC SUPERTAPE® 8-TRACK CARTRIDGES

NEW FORMULA OXIDE COATING FOR SUPER-LINEAR RESPONSE

Quality high-fidelity with no special bias setting. Full-range response, low noise and hiss. Tough polyester base. New oxide coating reduces head wear. Special lubricant means fewer mangled tapes.



Stock No.	Mir's Type	Total Playing Time	EACH
910-2062	44-842	45 min.	2.49
910-2065	44-843	90 min.	3.49

AUTOMATIC TAPE CARTRIDGES

Continuous, self-contained automatic tape cartridges are compatible with all major brand cartridges on the market. Will record or play continuously. Operates on the endless-loop principle. * Indicates an empty cartridge.



No.	Model No.	Ft.	7½ ips	Size In.	Wt., Oz.	1- 49	50- 99	100- 499	500- Up
573-1001 573-1004 573-1006 573-1007 573-1010 573-1011	300 300 300 1200	25 132 394 1163	3½ min. 10½ min.	4x57/32x7/6 4x57/32x7/6 4x57/32x7/6 4x57/32x7/6 75/6x813/32x7/6 75/8x813/32x7/6		3.30 4.80 6.18 2.62 20.87	2.33 2.96 4.45 1.84 12.85	11.56	1.45

SUPERTAPE™ CASSETTES

Specially formulated tape provides low noise, wide dynamic range, low dropout and high frequency response. Gives you higher signal-to-noise and lower hiss level required for superior recordings. Smaller magnetic particles to reduce dead spots and eliminate flaking. Resists print-through and wear for longer tape life.



Stock No.	Mfr's Type	Desc.	Playing Time	EACH
910-7107	44-615	C-60	60 min.	2.59
910-7108	44-616	C-90	90 min.	2.99

LOW-NOISE CASSETTES

Perfect for all recording applications. Excellent for tape correspondence. Offer low noise, wide frequency response for good recording quality. Fine oxide coating provides uniform sound level without annoying dropouts. Hum shield prevents noise pickup.

Stock No.	Mfr's Type	Desc.	Playing Time	EACH
910-7103	44-601	C-30	30 min.	1.09
910-7104	44-602	C-60	60 min.	1.49
910-7105	44-603	C-90	90 min.	1.99
910-7106	44-604	C-120	120 min.	2.49

RECORDING TAPE AND TAPE ACCESSORIES

TYPE 290-18 TRIPLE-LENGTH
1/2-MIL TENSILIZED POLYESTER
1800 feet on 5" reel gives you 200%
longer playing time. Shpg. wt. 11/2 lbs.
949-0419. 1-11 Each 4.69
12-Up Each 4.22



TYPE 24 LEADER AND
TIMING TAPE

100-foot length. In self-dispensing container for added convenience. Shpg. wt. 3 oz.
949-0415, 1-11 Each 75c
12-Up Each 54c



Scotch

Scotchi



REPLACEMENT HEADS FOR TAPE **RECORDERS**

In function column: R - record; P - play; E-erase; Pr-program; C-cue. † Indicates mounting kit when re-

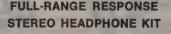


FOR REVERE, WOLLENSAK, 3-M

Stock No.	Mfr's Type	Func- tion	†	Models	EACH
869-6000	RPE-23	RPE		852, 900, 905, 925, 926, 1000, 1005, 1025, 1026, 1000, 1100, 1105, 1125, 1126, 1200, 1205, 1225, 1226, 1400 (B. C. D. E.), 1405, 1425, 1426, 1500, 1520, 1570, 1600, 1700, 1800, 2005, 2005, 2025, 7805.	17.05

BROADCAST CARTRIDGE HEAD REPLACEMENTS

869-6080	3200	R/PC	115	Gates M5944; Sparta 200P, 200RP, 300P	
869-6081	3201	R/P Pr		Gates M5944, RCA RT7B, RT7C; Sparta 200P, 200RP, 300P	18.40



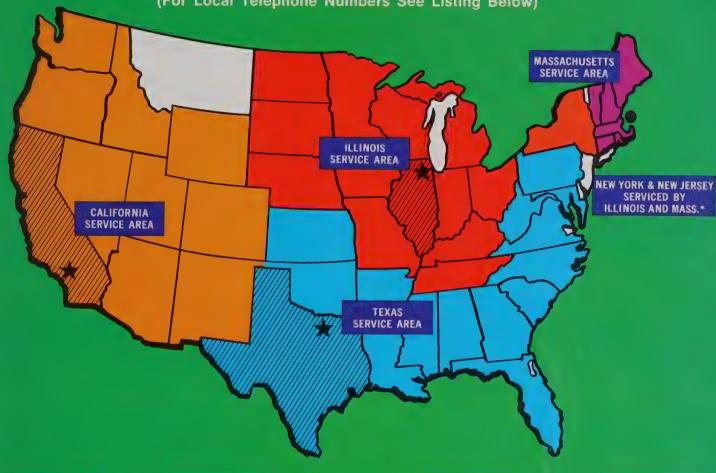
Budget Price Kit for Stereo that Sounds Like a Million

Stereo headphone kit with deluxe features at a surprisingly low price. Features volume control on each ear cup for adjusting sound for perfect balance. Specially shaped earcups seal out room noises. Wide-range 50-17,000 Hz frequency response. Comfortable padded ear cushions and headband. Chromed metal parts, Impedance, 8-24 ohms. Coiled cord and 1/4" phone plug. Easy assembly. 910-5550. Type 28-4005......19.95



CALL YOUR NEAREST ALLIED NUMBER TOLL-FREE

(For Local Telephone Numbers See Listing Below)



CALIFORNIA SERVICE AREA

800-472-2471

California State

800-854-2421

Arizona Colorado Idaho Nevada **New Mexico** Oregon Utah Washington Wyoming

ILLINOIS SERVICE AREA

800-942-7863

Illinois State

800-323-5450

Nebraska New Jersey* New York*

N. Dakota S. Dakota

800-323-5240

Indiana lowa

Kentucky

Michigan Minnesota

Missouri Ohio

Tennessee Wisconsin

TEXAS SERVICE AREA

800-792-8760

Texas State

800-433-2890

Alabama **Arkansas**

Delaware

Florida

Georgia Kansas

800-433-2890

Louisiana

Maryland Mississippi N. Carolina

S. Carolina

Oklahoma **Pennsylvania**

Virgini<mark>a</mark> W. Virginia Washington D.C.

MASSACHUSETTS SERVICE AREA

800-225-1890

Connecticut Maine

Massachusetts New Hampshire

New Jersey* New York* Rhode Island

Vermont

LOCAL TELEPHONE NUMBERS

- ★ GARDEN GROVE, CALIFORNIA 12311 Industry Street Garden Grove, Calif. 92641 (213) 598-8671, (714) 894-7581 TELEX: 68-5534, 65-5465
- **★ MAJOR STOCKING AREA**
- * ELGIN, ILLINOIS (Chicago Area) 1355 Sleepy Hollow Road Elgin, Illinois 60120 (312) 697-8200 TELEX: 72-2466, 72-2465
- BOSTON. MASSACHUSETTS **One Century Circle** Campanelli industrial Pk. Braintree, Mass. 02184 (617) 848-4150 **TELEX: 94-0650**
- ★ FORT WORTH, TEXAS 401 E. 8th Street Fort Worth, Texas 76102 (817) 336-5401 **TELEX: 75-8314**

SALES BRANCH WITH INVENTORY

^{*}Residents of New York and New Jersey may call either the Illinois Service Area (800-323-5450) or the Massachusetts Service Area (800-225-1890)

- PLACE PLASTIC FOR

READY-REFERENCE OF MANUFACTURERS WHOSE PRODUCTS ARE AVAILABLE FROM ALLIED ELECTRONICS

ADC **ADMIRAL CONTROLS** AIPHONE AKRO-MILS ALCO ALLIED ALL STAR PRODUCTS ALPHA AMERICAN BEAUTY AMERICAN DRYER AMPEREX AMPERITE AMPHENOL CONNECTORS AMPHENOL FANS AMPHENOL POTS **AMPROBE** ANTEX ARCHER ARCO ARGOS ARROW-HART ATLAS **AUDIO ANNOUNCER**

B&K (DYNASCAN)
BELDEN
BISHOP
BOGEN
BOURNS
BROOKS
BUD
BURGESS
BUSSMAN

CTS
CALVERT
CAMBION
CENTRALAB
CHICAGO MINIATURE
CINCH-JONES
CIRCUIT STIK
CLAIREX
CLAREX
CLAREX
CLAROSTAT
CLAUSS
COLUMBIA
CONSOLIDATED DRILL
CORCOM
CORNELL-DUBILIER
CRAMER
CRESCENT
CROWN
CUTTIS DEVELOPMENT
CUTLER-HAMMER

DALE
DARCO-CEI
DAVIES
DEARBORN
DIALCO
DORMEYER
DOW KEY
DRAKE
DREMEL
DUNCAN

E

ECC EAGLE EASY-UP
EDELSTAAL (UNIMAT)
EDSAL
EICO
EIMAC
ELECTRONIC MEASUREMENT
ELECTROMATION
ELECTRONS
ELECTRO/OCEANICS
ELECTRO/OCEANICS
ELECTROVERT
ELMENCO
EPSCO
ESSEX/STANCOR
ELECTRONIC TRANSISTOR
CORP. (E.T.C.)

FAIRCHILD FANON/COURIER FENWAL

GE SILICONE
GENERAL CEMENT (GC)
GENERAL TIME
GIA
GRAYHILL
GREENLEE
GUARDIAN

G

HAMLIN
HANSEN
HANSON (ACE)
HECON
HITACHI
HONEYWELL
HUBBELL (METRO)
HUNTER
HUNT
HURST

INDUSTRIAL TIMER
INTERNATIONAL RECTIFIER
INTERMARKET
INTERMATIC
ITT GEN. CON.

JBT JFD E. F. JOHNSON JONARD

KEPRO KESTER KEYSTONE KINGS KLEIN KURZ-KASCH

LECTROTECH
LEE BEE (FAHNESTOCK)
LEECRAFT
LINEMASTER
LITELFUSE
LUMENITE

LUTRON

MACHLETT LABS
MAGITRON
MAGNECRAFT
MALLORY
MARK TIME
MASTER
MAUREY
MICROFLAME
MICRONTA
J. W. MILLER
MOODY
MORRIS
MUELLER
MURA

NATIONAL ELECTRONICS NATIONAL TEL-TRONICS NEWMAN NORTRONICS NUCLEAR SYSTEMS NUCLEONIC NU-WAY NYTRONICS

OK TOOL ORYX/TELVAC

PLC
PAMOTOR
PACIFIC PLANTRONICS
PIKE
PLASTIC CAPACITORS
POLAROID
POMONA
POTTER & BRUMFIELD
POWER INSTRUMENTS
POWER PHYSICS

RAACO
RADIO SHACK
RAYTHEON
RBM CONTROLS
RCA
REALISTIC
REEVELEC
RICHCO
ROBERTSHAW
ROBINS
ROCKWELL
ROXTER
RUSSEL
RUSTRAK

SAGE
SAMS, HOWARD W.
SARKES-TARZIAN
SCOTCH
SCOTT
SENCORE
SETH THOMAS
SHURE
SHURMAN
SIGMA

SIMPSON
H. H. SMITH
SOLA ELECTRIC
SOLAR SYSTEMS
SOUNDOLIER
SPECTRA-STRIP
SPECTRONICS
SPRAGUE
STACKPOLE
STACCO
STANCOR
STANCOR
STRUTHERS-DUNN
SUPERIOR
SWING-A-LITE
SWITCHCRAFT
SYLVANIA

TANDY WIRE & CABLE
TCC BOOKS
TRW CAPS
TRW CONNECTORS
TRW POTS
TRW RESISTORS
TRW TRANSFORMERS
TAB
TAPESWITCH
T-BAR
TECHNIQUES
TELEPRO
TELEX
THERMALLOY
THERMOSEN
TRIAD
TRIPP-LITE

U

UTC UNGAR UNIMAT UNIVERSITY USECO UTAH UTICA

VACO VARIAN VARO VECTOR VICTOREEN VIGOR VLCHEK

WAHL
WAKEFIELD
WANLASS
WASSCO
WAYNCO
WELLER
WHEELER
WILTON
WOOD

X-ACTO XCELITE

YELLOW SPRINGS

CUSTOM LABELING SERVICE. At surprisingly low cost, Allied Electronics will supply volume purchasers with customprinted, private tape labels made from the purchaser's own graphics. (Min. order: 25,000.) Contact your nearest Allied facility for pricing and delivery information.



910 SERIES DYNAPHONIC™ FULL RANGE CASSETTES

- Flat Frequency Response of 25 to 7500 Cycles
- High Quality Welded Cassette Housing
- Four Standard Sizes Available

Standard output magnetic oxide recording tape with flat frequency response of 50 to 7500 cycles within 4 dB. Housed in high quality welded cassettes with plastic corner rollers running on lubricated stainless steel pins. Recording noise level of —55 dB. Labeled and bulk packed.

*Sold only in multiples of 500.

MINIMUM ORDER: 500 PIECES PER TYPE

Stock No.	Mfr's Type	Description	Rec. Time Minutes	Price Each
601X0100	10-911	C-30	30 .	.48
601X0200	10-912	C-60	60 :	.54
601X0300	10-913	C-90	90	.70
601X0400	10-914	C-120	120	.89

920 SERIES DYNAPHONIC™ LOW-NOISE EXTENDED RANGE CASSETTES

- Frequency Response of 25 to 11,000 Cycles
- 5 Screw, Precision Cassette Housing
- Three Standard Sizes Available

Low noise high output magnetic oxide recording tape. Output at 6300 cycles plus 2 dB relative to 910 Series recording tape. Frequency response of 25 to 11,000 cycles within 4 dB. Noise level of -58 dB. Housed in 5 screw, precision cassette casing. Labeled and bulk packed, 500 per case.

*Sold only in multiples of 500.

MINIMUM ORDER: 500 PIECES PER TYPE

Stock No.	Mfr's Type	Description	Rec. Time Minutes	Price Each*
601X1000	10-925	C-45	45	.59
601X1100	10-926	C-60	60	.66
601X1200	10-927	C-90	90	.88



腻

CASSETTE BOXES

Type 611. Translucent polypropylene hinged boxes are available in case quantities of 400 per case. (Shipped in separate containers from the bulk cassettes.) *Sold only in multiples of

Minimum order: 400 pieces



CASSETTE TAPE SPECIFICATIONS **Operational Tests**

1. Cassette and tape shall withstand environmental extremes of 159°F, +0-9°F at 0 to 30% R.H. for 24 hrs; -22°F, +9-0°F for 24 hrs; and 113°F, +9° at 95% R.H. for 24 hrs. without obvious distortion and shall still operate. Ref: GSA specifications FPNHO-R-55228-A-6-7-73. 2. The recording characteristics shall conform to the above GSA specification table III, page 17. 3. The playing time shall be at the indicated time per side when running at 1.875" per sec. (nominal 1%).

Designation	Normal	Minimum	Maximum				
C-30	15 min. 22 sec.	15 min.	16 min. 10 sec.				
C-60 ·	30 min. 44 sec.	30 min.	32 min. 20 sec.				
C-90	46 min. 6 sec.	45 min.	. 49 min. 30 sec.				
C-120	61 min. 30 sec.	60 min.	64 min, 40 sec.				

Cassette Assembly

1. Cassette shall be smooth, clean, free of cracks and sharp flash, ultrasonically welded with no seam in tape path. (Option: Screwed together—5 screws.) 2. Cassette halves shall be mated with less than 0.010" misalignment. 3. Viewing window shall be rigid and sealed in place. 4. Tape corner guides shall be flanged plastic rollers turning on lubricated steel pins. 5. Cassette shall contain friction liners coated with graphite. 6. Hubs shall be white. 7. Dimensions of cassette and its openings shall conform to IEC 94A specifications. 8. Maximum torque with hole back shall be 55 gm-cm.

CROSS REFERENCE TABLE FOR MAGNETIC TAPE T.M. 910 Series

	Size	Туре	3M	BASF	THK	MEMOREX	CAPITOL
ì	C-30	44-911		SK	D-C30		
	C-60	44-912	H-C-60	SK	D-C60		
	C-90	44-913	H-C-90	SK	D-C90		
	C-120	44-914	H-C-120	SK			

T.M. 920 Series

Size	Туре	3IVI	BASF	ТНК	MEMOREX	CAPITOL
C-45	44-925	S-C-45			MRXII	11
C-60	44-926	S-C-60	LH	ED	MRXII	Н
C-90	44-927	S-C-90	LH	ED	MRXII	H

DYNAPHONIC™ TAPE-14" REELS-INDIVIDUALLY BOXED

FULL RANGE TAPE

Quality standard oxide magnetic recording tape with flat response from 50 to 15k cycles with 3 dB. Distortion at 0 VU: 1.5% max. Weighted bias noise: —52 dB. Signal to noise ratio: 59 dB. **Sold only in multiples of 50. MINIMUM ORDER: 50 PIECES PER TYPE

Stock No.	Mfr's Type	Reel Size	Foot- age	Thk. (Mil)	Price Each*
601X1300	10-935	5"	600'	1.5	1.22
601X1400	10-936	7"	1200'	1.5	1.96
601X1500	10-953	5"	900'	1	1.32
601X1600	10-954	7"	1800'	1	2.23



LOW NOISE EXTENDED RANGE TAPE

High output low noise magnetic oxide recording tape. Flat response from 25 to 19k cycles within 3 dB. Distortion at 0 VU: 1.2 max. Weight bias noise: -54 dB. Signal to noise ratio: 65 dB with output at 3% THD of +11 dB. *Sold only in multiples of 50.
MINIMUM ORDER: 50 PIECES PER TYPE

Stock No.	Mfr's Type	Reel Size	Foot- age	Thk. (Mil)	Price Each*
601X1700	10-972	5″	900'	1	1.55
601X1800	10-973	7"	1800'	1	2.79
601X1900	10-980	7"	1200'	1.5	2.34

Audio and Video Tape Equipment

B Echo-Matic Tape Cartridges. Especially designed for Recorder and Repeater units at right. (*)Seconds. Shpg. wt: 1 lb.

		Minutes			
Stock	Mfr's	(@ 3¾	1-	12-	145-
No.	Type	ips)	11	144	Up
879-1129	141.070	70*	5.00	4.00	2.05
879-1121	141.003	3	5.37	4.29	2.25
879-1123	141.006	6	6.13	4.90	2.55
879-1127	141.015	15	8.13	6.50	3.40
879-1136	143.030	30	9.90	7.92	4.10
_					

Continuous Play Audio Vendors. Designed use on most reel to reel recorders. For unlimited applications in all fields. Unit runs counterclockwise at 3% ips. (*) Indicates empty cartridge. Shpg. wt: 12 oz.

Stock	Mfr's	Minutes	ΕA	CH
No. Type			1-11	12-Up
879-1114	131.012	12	12.00	9.60
879-1110	131.000	*	7.13	5.70
879-1130	121.030	30	12.95	10.36

AUTOMATIC TAPE EQUIPMENT

Present your sales messages effectively on continuous-play tape cartridges

Model 773.220 Repeater. Solid state cartridge-A Model 773.220 Repeater. Solid state cartridge-loading playback unit operates on cue or continuously. Automatic shutoff. Operates at 3¾ and 1% ips. Requires power amplifier and speaker or headset. Earphone jack has 2000 ohm impedance. Transformer powered. Accepts ECHOMATIC cartridges listed below left. Signal to Noise: 45 dB. Frequency Response: 40-7500 Hz. 105-120 VAC, 60 Hz. Shpg. wt: 14 lbs. 879-1160....Ea. 140.19 5-Up....Ea. 118.95

Model 773.281 Audio Repeater. Playback only. Features "end of cycle" shutoff, all transistor circuitry, built-in 4 watt amplifier and built-in 4" speaker. Shpg. wt: 15 ibs. 879-1161....Ea. 159.95 5-Up....Ea. 132.95

Model 773.320 Recorder-Repeater. For recording and playback where recordings are changed fre-quently. Built-in amplifier, speaker. Completely transistorized. Shpg. wt: 16 lbs. 879-1163.... Ea. 191.95 5-Up.....Ea. 162.95

Model 773.420 Syncro-Recorder. Especially suitable for synchronized audio visual projection when coupled with most push button remote controlled slide and filmstrip projectors. Compact, all solid state, with all audio record and playback facilities including the tone recording and allow all solid state, with all audio record and playback facilities including trip tone recording and playback. Built-in 4 watt amplifier and 4" speaker. External speaker jack. Other features include "on demand" start with push button, mat switch, capacity switch and slide switch. 6" x 6" x 9". Shgg. wt: 17 lbs.

879-1164... Ea. 250.45 5-Up... Ea. 212.95

Model 773.287 Synchro-Repeater. (Playback only). Unit will playback the audio message, as well as the trip tone signal, which may be recorded on the Synchro-Recorder listed above. Unit has all the features of the Synchro-Recorder except the audio and trip tone record facilities. Also has tone-trigger track to control remote units. May be used for synchronize slide program with audio. be used to synchronize slide program with audio. Power Requirements: 105-120 volts AC, 60 Hz. Size: 6 x 6 x 9". Shpg. wt: 16 lbs. 879-1162.... Ea. 200.35 5-Up.... Ea. 169.95



mylar/paper laminated program tape. Self-feeding and stacking. Requires no reels. 1" wide. .004" thick. 850" long. Individually packed for easy inventory. Blue. 100 p. 10

E TSV-50. Videotape Splicer. Designed for easy operation in studio work. Gives a neat, clean cut ½". Videotape splicer comes complete with 25 patches. Extra patches available 134 lbs. able. 1¾ lbs. 913-4092. Ea.15.59

TK-8DLX. Deluxe tape accessory kit. Everything you need to edit and clean—splicer, threader, clips, lubricant, cloths, reel holders labels, splicing tape and instructions.

H TT-18. Color coding leader tapes. Use to re-inforce and color code tape ends. Five 2½" reels in five colors. Tearproof 1½ mil Mylar base—red, blue, green, yellow and white. 14 oz. 913-4098. Ea. 4.30 6-Up 3.44

TK-6. Cleaner and Lube
Kit. 2 oz. bottles of head
cleaner and guide lubricant.
Applicator caps. Minimizes
wear, reduces wow and flutter. Improves sound fidelity.
Shpg. wt. 6 oz.
913-4019. Ea. 2.25
6-Up 1.80













|K TD-6 Deluxe Head Demagnetizer. Heavy-duty. 45% x 11/4". U.L. Listed. 6 ft. cord. 110-120 VAC, 50-60 Hz. 1 lb. 913-4015... Ea. 12.90 6-Up... Ea. 10.32

TM-100 Audio-Video Bulk Tape Eraser. For tape 1" on 101/4" reel. 5 minutes on/off cycle, 3% x 6 x 8". 115 VAC. 10 lbs. 913-4069 .Ea. 74.50 6-Up...Ea. 67.00

M TN-120 Audio-Video Bulk Tape Eraser. Accepts reels to 17". Reduces 50-90 dB. 3% x 12 x 4". 115 VAC, 50-60 Hz. 913-4068..Ea. 146.12 6-Up..Ea. 131.50

N TM-99 Bulk Tape Eraser. For reels to $10^{12}\%$ ", tapes to $\frac{1}{2}\%$ ", $5\frac{1}{2}\%$ x $6\frac{1}{2}\%$ x $3\frac{1}{2}\%$ ", 110-120 VAC, 50-60 Hz. 5 amps. 913-4067...Ea. 37.75 6-Up...Ea. 33.95

P TM-77 Deluxe Bulk Tape Eraser, For 1/4" tapes. Accepts reels to 7". U.L. 23/6 x 23/4 x 61/4". 115 VAC. 5 lbs. 913-4062...Ea. 22.75 6-Up...Ea. 20.50

R TMC-1 Cassette Eraser. Provides like new condition to cassettes in seconds. 110 VAC. 3 lbs. 913-4053...Ea. 14.05 6-Up...Ea. 12.65

S R33029 Deluxe Cassette Tape Splicer. Precision cut and trim. Built-in dispenser with splicing tape in 913-6010...Ea. 12.87 6-Up...Ea. 10.30

TS215 Cassette Splicing Block. Cuts at 45° or 90° angle. Plastic case, cutting blade and 25 patches.
913-4001...Ea. 10.62 6-Up...Ea. 8.50

U THC-6 3-Way Combination Test-N-Clean Cassette. Cleans head, tests head for alignment. Tests stereo bal-913-4020....Ea. 2.65 6-Up....Ea. 2.12

W TD-3 Tape Head Demagnetizer.
Angled probe to reach heads easily.
3½ x 1¼" diameter. 110 VAC, 50-60 Hz. 913-4012....Ea. 7.42 6-Up....Ea. 5.94

| TMC-2 Cartridge Eraser. Erases 8-track cartridges in seconds. 115 VAC, 50-60 Hz. Shpg. wt: 5½ lbs. 913-4054... Ea. 23.79 6-Up... Ea. 21.45

TM-44 Bulk Tape Eraser. For 1/4" tape, reels to 7". Reduces below normal erase head level. 115 VAC, U.L. 2% lbs. 913-4055...Ea. 19.00 6-Up...Ea. 15.20

TS-115 Cassette Tape Splicer. Economy model. 45° angle. Includes 25 self-stik splicing patches. 5 oz. 913-4078....Ea. 4.95 6-Up...Ea. 3.96

AA TS-7J Junior Stereo Splicer. Diagonal cut. Uses %" splicing tape. Centering adjustment. Wt: 8 oz. 913-4072....Ea. 9.22 8-Up...Ea. 7.38

B TS-8D Deluxe Stereo Splicer. 4 track. Diagonal cut. Centering adjustment. Tape dispenser. 100 ft. 1/2" tape. 1 lb. tape. 1 lb. 913-4074...Ea. 12.87 6-Up...Ea. 10.30

BOOKS AND MANUALS

TRANSISTOR SUBSTITUTION HANDBOOK. Thousands of direct susstitutions for all types—foreign and domestic. Loaded with information, biasing diagrams, polarities, electrical parameters, etc. 144 pages. No. 21040.

REFERENCE DATA FOR RADIO ENGINEERS. 5th Edition

TRANSISTOR SPECIFICATIONS MANUAL. Big, sixth edition of the popular specifications manual for the TRANSISTOR FUNDAMENTALS. Specially developed 4-volume set by Training and Retraining, inc. Carefully planned course in semiconductor theory and circuitry. Summary questions for each chapter, final test at end of each volume. All four volumes in protective slipcase for years of use. An easy to learn system taught by experts. 5x8½". No. 20645.

TIME DELAY RELAY HANDBOOK. Third edition. The first

Electronics Handbooks and Publications

THE WORLD'S FINEST ELECTRONIC PUBLICATIONS . . . By ALLIED AND OTHERS

A wide array of comprehensive and informative volumes from Allied. Reference works, handbooks, introductory manuals for the beginner, how-to-do-it-books.



TUBE SUBSTITUTION HANDBOOK. More than 12,000 direct tube substi-tutions. Picture tubes, mintutions. Picture tubes, miniature tubes, industrial cross references. Completely up-to-date. An invaluable reference aid. 96 pages. No. 62-2030. 910-5513 Each 1.75 100-Up Each 1.40



ALLIED'S TIMING CIR-CUITS HANDBOOK. Design tips, how to use informa-tion and numerous circuit diagrams with Allied stock numbers listed for every part. Essential for all users of repeat cycle timers. 32

664-9999 Each 3.95



SHORTWAVE LISTENER'S GUIDE. Lists shortwave stations by country, city, call letters, frequency, power and transmission times. Includes log for stations you hear. 96 pages. No. 62-2032.

910-5615 Each 1.95 100-Up Each 1.56



TV TUBE SYMPTOMS AND TROUBLES. Pictures of the typical troubles caused by defective TV tubes. Ex-plains EACH stage of TV operation with easy-to-un-derstand block diagrams. 96 pages. No. 62-2033. 910-5616 Each 1.95 100-Up Each 1.56



ELECTRONICS

ELECTRONICS DATA HANDBOOK. Algebraic formulas, trigonometry tables, metric conversion charts, tube, transistors replacement table, much more important electronic data, 112 pages. No. 62-040.

CTRONICS

910-5618 Each 1.25 100-Up Each 1.00



CITIZENS BAND RADIO Tells the history and many uses of CB. How to get started in CB, choose your equipment, set up and operate a station. Covers equipment and antennas, servicing, more. 112 pp. servicing, more. 112 pp. No. 62-2044. 910-5700 Each .95



NTRODUCTION SHORTWAVE LISTENING. The excitement of short wave listening. How to get best reception with your radio, how to choose and install antenna for best reception. How to go after DX stations. 96 pages. No. 910-5710 Each .95



ALL ABOUT HIGH FIDEL-ITY AND STEREO. Principles of monophonic and stereo sound. How to choose components to achieve maximum enjoy-ment and sound quality. 96 pages. No. 62-2043. 910-5621 Each .95



factual and interesting style

GETTING STARTED IN ELECTRONICS. Complete instructions for building many useful projects – radios, a code set, walkietalkies, etc, to put newly learned theory into practice. 112 pages. No. 62-2045. STARTED IN

Each is written for clear understanding and broad coverage of its subject in a

910-5623 Each .95 100-Up Each .76



USING YOUR TAPE RE-CORDER. Explains how to choose and maintain a re-corder, how to record effi-ciently from various sound sources, how to edit your tapes, plus much more. 112 pages. No. 62-2046. 910-5624 Each .95 100-Up Each .76



terms, easy-to-understand definitions. Charts, dia-grams, illustrations to aid in explaining the most complex terms. 112 pages. No. 62-2047.

910-5625 Each 1.25 100-Up Each 1.00



ENCYCLOPEDIA OF ELECTRONIC COMPONENTS. Common electronic de-vices. Full information on their uses and applica-tions. An invaluable guide for the beginning student. 128 pages. No. 62-2048. 810-5626 Each 1.25

100-Up Each 1.00



UNDERSTANDING SCHE-MATIC DIAGRAMS. Com-plete coverage of the the basic schematic compo-nents and their function in schematic diagrams. In schematic diagrams. Teaches how to read them, and how to draw them. 112 pages. No. 62-2049 910-5627 Each .95 100-Up Each .76



UNDERSTANDING SOLID-STATE ELECTRONICS.
Basic course in semicon-ductor theory, 12-lesson, self-teaching course gives excellent foundation in the solid-state field. 244 pages. No. 62-2035. 910-5628 Each 1.95 100-Up Each 1.56



BEST WAYS TO USE YOUR VOM-VTVM. Covers testing procedures for CB equip-ment, ham gear, hi-fi and other electronic uses. Fully illustrated. Easy-to-under-stand. 96 pages. No. 62-2039

910-5629 Each .95 100-Up Each .76



INTRODUCTION TO AN-TENNAS. Discussion of antenna theory, including a basic discussion of radio waves, frequency and wavelength. Also installation and antenna types. 130 pages. No. 62-2051. 910-5631 Each .95 100-Up Each .76

OSCILLO-SCOPES. Fully

detailed charts, pictures, dia-

grams to give either the begin-ner or the pro the

most from their equipment. Tells



HOW TO BUILD ELECTRONIC KITS. Easy-to-understand guide on many currently available electronic kits. Simple in-structions and in-struction manuals on how to use electronics kits.

Shows how to use simple kit-building tools, 96 pages. No. 62-

2038. 910-5663 100-Up



TRANSISTOR PROJECTS VOL. I. Twelve educational projects for the beginner or the professional. Just listen to a few great
ones — CB crystal
oscillator, power
ic thermometer, lie detector, siren,
electronic metronome, etc. 96
pages. No. 62-2080.



CIRCUIT PROJ-ECTS. VOL. I. Tells you how to construct metal detectors, geiger counters, voice scrambler/un-

scrambler, light digital counter, counterdetector, sound tele-c. 96 pages. No. 62coin

910-5664 100-Up Each 1.25 ...Each 1.00



HOW TO BUILD SPEAKER ENCLO-SURES. Exciting book shows you not only how to construct acoustically perfect enclo-sures, but also how to construct stylish and attractive mod-res. Shows bass-

ern enclosures. Shows bass-reflex, infinite baffle, many more. 144 pages. No. 62-2055. 910-5669 9Each .95



CB-HAM-SWL MINI-LOG, Perfect to keep your ham record and accurate . . holds neat and accurate . . . holds complete listing of stations received. Spiral bound for easy, trouble-free use. **No. 62-2036.** 910-5665 Each .50 100-Up



HOW TO HEAR POLICE, FIRE & AIRCRAFT RA-DIO. Give all in-formation needed

to enjoy real life drama on the public service bands. Tells how to choose the best antenna, radio, what you can hear on each band. 128 ear on each No. 62-2053. 910-5670 Each .95

..... Each .76



ciples essential to acquiring a knowledge of electronics. Ex-plains how to

MATH FOR THE

ELECTRONICS STUDENT. Prin-

duction, capacitance, RMS, peak power, power factor, resonance, 112 pages. No. 62-2057. Each 1.25 910-5720



FROM 5 WATTS FROM 5 WATTS
TO 1000. Programmed course
to take you from
Citizens Band to
Amateur Radio.
Theory, tips to
learn code,
more. No. 62-

. Each 2.25 910-5715



equipment. Tells wave-form analysis, frequency response curves, servicing. 96 pp. No. 62-2050. 910-5672 Each .95

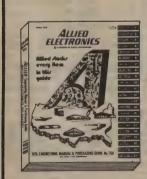


CUITS FOR EX-Explains how to make and use "AND" gates, "OR" gates, flip-flops, logic clocks, more. 96 pp. No. 62-2058.

COMPUTER CIR-

HOW TO SELECT THE OPTIMUM FAN FOR YOUR APPLICATION. Pamotor Staff. Determining airflow and pressure requirements, mechanical and structural requirements, acceptable noise levels.

Each 2.98



GET ALL THE COPIES OF THE **ALLIED ELECTRONICS ENGINEERING MANUAL** AND PURCHASING GUIDE YOU NEED FOR YOUR STAFF

25 Copies 50 Copies 500 250 100

Allied Electronics Engineering and Purchasing Guide is an indispensable tool for en-gineers, researchers, purchasing agents and anyone who specifies electronics parts. Make sure you have one for every member of your staff or faculty. Shpg. wt: 1 lb. Each 5.00 910-9999. 1-24

50-Up Each 1.00

ELECTRONIC CIRCUIT DESIGN HANDBOOK. 4th edition. 600 designs. 700 diagrams, waveforms, illustrations. 19 sections cover all aspects of circuit design. 416 pages. No. 101 571-0101. Shipping weight 2 lbs.......Each 17.95

SOLID STATE CIRCUIT DESIGN AND OPERATION. Designed for the beginner and/or novice experimenter and hobbyists this easy to understand text covers the design principles of amplifiers, oscillators, etc. 130 illustrations. 272 pages.

571-0508. Shpg. wt. 2 lbs..... Each 9.95 TRANSISTOR CIRCUIT GUIDEBOOK. For

anyone who needs information on transistor circuit design and construction, 224 pages full of explanations, diagrams and charts. Everything the technician needs to fully understand circuits. No. 470 571-0470. Shpg. wt. 2 lbs...... Each 7.95

MODERN APPLICATIONS OF LINEAR MODERN APPLICATIONS OF LINEAR IC'S. Latest approaches in IC usage. Cov-ers IC amplifiers, multipliers, compara-tors, phase locked loops, analog switches, regulators, communication and consumer IC's. Amply illustrated. 276 pages. No. Each 12.95

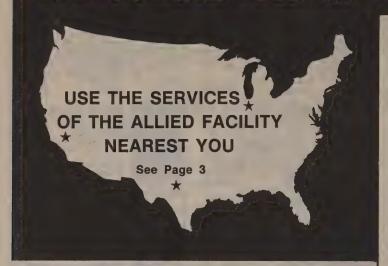
ELECTRONIC DESIGNER'S HANDBOOK.
2nd edition. Complete reference on transistor circuit design, to the depth required for practical engineering work.
Discusses difficulties involved in designing and testing prototype circuits. 304
pages. No. 228
Fact. 2026. 571-0200 Each 9.95

FET APPLICATIONS HANDBOOK. 2nd edition. Articles by leading authorities on FET circuit design for the practicing engineer. Several chapters devoted to biasing considerations, complete with transfer curves. Illustrated. 349 pages. No. 240 571-0220 571-0220

RELIABLE ELECTRONIC ASSEMBLY PRO-DUCTION. Bridges gap between design and production. Introduces new methods and materials. Discusses problems which may arise between design and production. Helps réduce cost overruns. 208 pages. No. 287 571-0210 Each 12.95

25-49..... Each 2.50

Every time you order from Allied Electronics it's the best buying decision you can make



Branch Offices . . .

Allied has Sales Facilities strategically located throughout the United States to give the fastest personalized service possible. You can expect reliable service when you order from your nearest Allied Electronics facility. If you should have any questions about your order, ask your Allied Electronics representative.

Order by mail

We will ship your order as quickly and safely as possible. For the East and Midwest, address your order to Allied Electronics, 1355 Sleepy Hollow Road, Elgin, Illinois 60120. For the Southwest, 401 East 8th St., Fort Worth, Texas 76102. For the Pacific Coast, 12311 Industry St., Garden Grove, California 92641. For New England, there is also a stocking sales office at One Century Circle, Campanelli Industrial Park, Braintree, Massachusetts 02184.

Order by Telex

We can handle any order via Telex. For Elgin, III. call 72-2465 or 72-2466. For Garden Grove, Cal., call 68-5534 or 65-5465. For Fort Worth, Texas call 75-8314. For Boston, Mass. call 94-0650.

Or place your order by telephone

If a "rush" order must be shipped immediately, call the Allied facility nearest you.

OPEN ACCOUNTS

We extend credit to Government Agencies and well-rated Industrial and Institutional accounts. Firms without a published rating may apply to Allied for a line of credit by submitting a financial statement with bank and trade references to our Industrial Credit Dept. A minimum order of \$50 is required to begin a new open account. Terms of payment are net, 10 days, E.O.M. and 11/2 % carrying charge over 30 days.

MINIMUM OPEN ACCOUNT BILLING

Minimum order \$15.00. Any order below \$15.00 will have a \$1.50 handling charge added.

NON CATALOGED ITEMS

On non-cataloged items in many cases there will be a \$25.00 minimum.

C.O.D. ORDERS

All C.O.D. orders placed by Open Account customers will be accepted based upon a \$15.00 minimum charge exclusive of all transportation charges and C.O.D. fees. No back orders will be made for C.O.D. items.

APO AND FPO ORDERS

APO and FPO shipments will be routed Parcel Post, with maximum size 100 inches (length plus girth) and maximum weight 70 lbs. For faster delivery, specify air parcel post. To estimate shipping charges, see chart on next page.

PRICES AND SHIPMENTS

Catalog prices are net, F.O.B. shipping point, and are subject to change without notice. Orders are filled at prices in effect at time of shipment. If prices are reduced, you receive the benefit and pay the lower price.

We reserve the right to add any Federal, state or local taxes that may apply. Prices and terms in this catalog apply only to the United States, Puerto Rico and Canada.

ALLIED'S AIR PROGRAM

Allied Electronics has established an air freight program to improve delivery over conventional methods of transportation. The program provides 72-hour delivery after receipt of order.

QUOTATIONS AND BIDS

If you need bids or quotations to place an order, or if you want larger quantities than are listed in our Catalog, be sure to contact us. Prices and delivery information will be provided for you immediately. Please address requests for quotations to the attention of the "Bid Department" at your nearest Allied facility.

DAMAGED MERCHANDISE

Since the terms of sale are F.O.B. shipping point, all claims for loss and damage are to be filled against the carrier by the consignee. This does not apply to shipments via Parcel Post or U.P.S., in which case you should write to your nearest Allied facility for instructions on handling the claim.

SERVICE AND REPLACEMENT GUARANTEE

All merchandise is guaranteed to be free of defects in material and workmanship for the period of time specified in the listing of the product. Where no time is specified, the guarantee is for 90 days. Wherever so indicated in our listing of the product, we will replace it. Wherever our listing does not specify, we will either replace it or repair it at our option. The item must be returned prepaid for our inspection.

CANCELLATIONS

All cancellations of orders must be confirmed. Restocking charges will be made on returned merchandise which was not confirmed.

MERCHANDISE RETURN

Allied's prior written authorization must be issued before merchandise is returned. Detailed instructions for returning merchandise will accompany the return authorization. A restocking charge may be deducted from your return. Merchandise returned without authorization or over 90 days old will carry a restocking charge (minimum 25%, maximum 100%). Non-catalog items may not be cancelled or returned.

SHORTAGES

Shortages must be reported to Allied Electronics within 30 days after receipt of shipment.

EXPORT ORDERS

Minimum export order is \$25 in U.S. currency, F.O.B. Elgin, Illinois. Write Allied Electronics Corporation, 1355 Sleepy Hollow Road, Elgin, III. 60120 or your nearest Allied facility for a complete quotation, including documentation, handling, and shipping charges.

Cash orders in U.S. dollars will be accepted for immediate processing. Please include an extra 20% (10% on orders over \$500) to cover handling, documentation, and shipping charges. We will promptly refund any excess of payment over actual charges. Terms for payment on export orders are cash, irrevocable letter of credit or sight draft. Telex 72-2466 for orders and bids. Use the services of our experienced International Department. Shipments on a complete basis or a split ship basis.

IF YOU WRITE TO US

Please include your purchase order number and our invoice number when writing to us on Open Account orders. If a cash order is returned, include your original order papers (these are returned to you after your order is shipped) with Stock Nos. and descriptions of items.

GOVERNMENT PACKAGING IS AVAILABLE AT ALLIED

Complete Shipping Information

CASH ORDERS

Be sure to include all transportation and insurance charges. Allied will ship your order the best way possible (see charts for Parcel Post and Truck Shipment charges. Minimum order \$15.00. Any order less than \$15.00 will have a \$1.50 handling charge added to the total price.

C.O.D. ORDERS

The minimum C.O.D. order is \$50.00. An advance deposit of 20% of the total value is required with order.

FREIGHT AND EXPRESS

Items in this catalog with letter "U", "W" or "Z" in Stock No. designate unmailable items. These items are shipped via truck or express, all freight charges "Collect".

TRUCK SHIPMENTS

Truck is the most economical way to ship items weighing approximately 70 lbs. or more. Refer to Truck Shipment Charges table, below right.

EXPRESS SHIPMENTS

Fastest way to ship unmailable items. For items weighing about 40 to 70 lbs., it's also economical. Refer to Truck Shipment Charges table, below right.

AIR EXPRESS AND AIR FREIGHT SHIPMENTS

We will ship your order Air Freight or Air Express on your instructions. Consult your local Express office for Air Express charges; contact your local airport for Air Freight charges.

ALLIED'S AIR PROGRAM

Allied Electronics has established an air freight program to improve delivery over conventional methods of transportation. The Air Program provides 72-hour delivery after receipt of order.

INSURANCE

To protect you, we insure shipments (except freight and express, which are insured by the carriers). Allow for insurance charges as follows:

\$2.00 to	\$1	00.00					.,		.12	٠			40c
\$100.01	to	\$150.00		٠		*			9 ,0	٠.			50c
\$150.01	to	\$200.00							9 9	. ,			60c
O	Ver	\$200.00	ad	d	40	10	ne	14	\$1	กก	0.0		

DAMAGED MERCHANDISE

Since the terms of sale are F.O.B. shipping point, all claims for loss and damage are to be filed against the carrier by the consignee. This does not apply to shipments via Parcel Post or U.P.S., in which case you should write to us for instructions on handling the claim.

Parcel Post and Truck shipping charges are those in effect at the time of printing—they are subject to increase at any time.

HOW TO ESTIMATE PARCEL POST CHARGES

We limit Parcel Post Shipments to 40 lbs. and 84 inches length plus girth (maximum measurement around widest point of package). Estimate charges from table below.

The post office charges a fraction of a pound as a full pound. For example if the total weight is 4 pounds and 1 ounce to Zone 4, postage would be for 5 pounds (\$1.10).

			,			о рошнао	(\$1.70).	
WEIGHT	Local	1st & 2nd	3rd Zone	4th Zone	5th Zone	6th Zone	7th Zone	8th Zone
1 Lb. & Not		Zone up	150 to	300 to	600 to	1000 to	1400 to	Over
Exceeding		to 150 mi.	300 mi.	600 mi.	1000 mi.	1400 mi.	1800 mi.	1800 mi.
2	\$.61	\$.72	\$.75	\$.83	\$.92	\$1.02	\$1.12	\$1.21
3	.65	.78	.83	.92	1.04	1.18	1.32	1.45
4	.69	.84	.90	1.01	1.16	1.33	1.51	1.69
5	.73	.90	.98	1.10	1.28	1.49	1.71	1.93
6 7 8 9 10	.77 .81 .85 .89	.96 1.02 1.08 1.14 1.20	1.05 1.13 1.20 1.28 1.35	1.19 1.28 1.37 1.46 1.55	1.40 1.52 1.64 1.76 1.88	1.64 1.80 1.95 2.11 2.26	1.90 2.10 2.29 2.49 2.68	2.17 2.41 2.65 2.89 3.13
11	.97	1.26	1.43	1.64	2.00	2.42	2.88	3.37
12	1.01	1.32	1.50	1.73	2.12	2.57	3.07	3.61
13	1.05	1.38	1.58	1.82	2.24	2.73	3.27	3.85
14	1.09	1.44	1.65	1.91	2.36	2.88	3.46	4.09
15	1.13	1.50	1.73	2.00	2.48	3.04	3.66	4.33
16	1.17	1.56	1.80	2.09	2.60	3.19	3.85	4.57
17	1.21	1.62	1.88	2.18	2.72	3.35	4.05	4.81
18	1.25	1.68	1.95	2.27	2.84	3.50	4.24	5.05
19	1.29	1.74	2.03	2.36	2.96	3.66	4.44	5.29
20	1.33	1.80	2.10	2.45	3.08	3.81	4.63	5.53
21	1.37	1.86	2.18	2.54	3.20	3.97	4.83	5.77
22	1.41	1.92	2.25	2.63	3.32	4.12	5.02	6.01
23	1.45	1.98	2.33	2.72	3.44	4.28	5.22	6.25
24	1.49	2.04	2.40	2.81	3.56	4.43	5.41	6.49
25	1.53	2.10	2.48	2.90	3.68	4.59	5.61	6.73
26	1.57	2.16	2.55	2.99	3.80	4.74	5.80	6.97
27	1.61	2.22	2.63	3.08	3.92	4.90	6.00	7.21
28	1.65	2.28	2.70	3.17	4.04	5.05	6.19	7.45
29	1.69	2.34	2.78	3.26	4.16	5.21	6.39	7.69
30	1.73	2.40	2.85	3.35	4.28	5.36	6.58	7.93
31	1.77	2.46	2.93	3.44	4.40	5.52	6.78	8.17
32	1.81	2.52	3.00	3.53	4.52	5.67	6.97	8.41
33	1.85	2.58	3.08	3.62	4.64	5.83	7.17	8.65
34	1.89	2.64	3.15	3.71	4.76	5.98	7.36	8.89
35	1.93	2.70	3.23	3.80	4.88	6.14	7.56	9.13
36	1.93	2.76	3.30	3.89	5.00	6.29	7.75	9.37
37	1.99	2.82	3.38	3.98	5.12	6.45	7.95	9.61
38	1.99	2.88	3.45	4.07	5.24	6.60	8.14	9.85
39	2.06	2.94	3.53	4.16	5.36	6.76	8.34	10.09
40	2.06	3.00	3.60	4.25	5.48	6.91	8.53	10.33

Over 40 lbs. shipped truck or express. See information below.

HOW TO ESTIMATE AIR PARCEL POST CHARGES

We will ship your order by Air Parcel Post on your instructions. Size and weight limitations are 70 pounds and 100 inches (length plus girth).

Wt.,	Zones	Zone	Zone	Zone	Zone	Zone	APO's
Lbs	1, 2, 3	4	5	6	7	8	and FPO's
To 1 1-1½ 1½-2 2-2½ 2½-3	\$1.25 1.50 1.75 1.93 2.11	\$1.25 1.54 1.83 2.03 2.23	\$1.25 1.60 1.95 2.17 2.39	\$1.30 1.68 2.06 2.31 2.56	\$1.30 1.75 2.20 2.48 2.76	\$1.30 1.82 2.34 2.65 2.96	APO & FPO San Francisco, 1.30 per lb.
3-3½ 3½-4 4-4½ 4½-5	2.29 2.47 2.65 2.83	2.43 2.63 2.83 3.03	2.61 2.83 3.05 3.27	2.81 3.06 3.31 3.56	3.04 3.32 3.60 3.88	3.27 3.58 3.89 4.20	APO & FPO New York 1.25 per lb.
For Each	Add	Add	Add	Add	Add	Add	
Extra Lb.	48c	50c	56c	64c	72c	80c	

HOW TO ESTIMATE TRUCK SHIPMENT CHARGES FROM CHICAGO

Rates about 10% higher to eastern states.

Do not send money for express charges if your station has an agent.

Wt.				MILE	AGE			
Lbs.	100	200	300	500	750	1000	1500	2000
1-150 151-200 201-250 251-300	10.75 10.75 13.20 15.84	10.75 12.64 15.80 18.96	11.75 14.84 15.83 22.23	12.02 16.02 20.03 24.03	13.25 17.66 22.08 26.49	14.99 19.98 24.98 29.97	18.08 24.10 30.13 36.15	23.55 31.40 39.25 47.10

AIIIED . 349

READY-REFERENCE OF MANUFACTURERS WHOSE PRODUCTS ARE AVAILABLE FROM ALLIED ELECTRONICS

ADC API ADMIRAL CONTROLS AIPHONE AKRO-MILS ALCO ALLIED ALPHA ALL STAR PRODUCTS AMERICAN BEAUTY AMERICAN DRYER AMGLO AMPEREX AMPERITE AMPHENOL CONNECTORS AMPHENOL FANS AMPHENOL POTS AMPROBE ANTEX ARCHER ARCO ARGOS ARROW-HART ATLAS **AUDIO ANNOUNCER**

B&K (DYNASCAN)
BELDEN
BISHOP
BOGEN
BOURNS
BROOKS
BUD
BURGESS
BUSSMAN

CTS
CALVERT
CAMBION
CENTRALAB
CHICAGO MINIATURE
CINCH-JONES
CIRCUIT STIK
CLAIREX
CLAREX
CLAREX
CLAREX
COLUMBIA
CONSOLIDATED DRILL
CORCOM
CORNELL-DUBILIER
CRAMER
CRESCENT
CROWN
CURTIS DEVELOPMENT
CUTLER-HAMMER

DALE
DARCO-CEI
DAVIES
DEARBORN
DIALCO
DORMEYER
DOW KEY
DRAKE
DREMEL
DUNCAN

ECC EAGLE EASY-UP
EDELSTAAL (UNIMAT)
EDSAL
EICO
EIMAC
ELECTRONIC MEASUREMENT
ELECTROMATION
ELECTRO/OCEANICS
ELECTROVERT
ELMENCO
EPSCO
ESSEX/STANCOR
ELECTRONIC TRANSISTOR
CORP (E.T.C.)

FAIRCHILD FANON/COURIER FENWAL

GE SILICONE
GENERAL CEMENT (GC)
GENERAL TIME
GIA
GRAYHILL
GREENLEE
GUARDIAN

HAMLIN
HANSEN
HANSON (ACE)
HECON
HITACHI
HONEYWELL
HUBBELL (METRO)
HUNTER
HUNT
HURST

INDUSTRIAL TIMER
INTERNATIONAL RECTIFIER
INTERMARKET
INTERMATIC
ITT GEN. CON.

JBT JFD E. F. JOHNSON JONARD

KEPRO KESTER KEYSTONE KINGS KLEIN KURZ-KASCH

L
LECTROTECH
LEE BEE (FAHNESTOCK)
LEECRAFT
LINEMASTER
LITTELFUSE
LUMENITE

LUTRON

M

MACHLETT LABS
MAGITRON
MAGNECRAFT
MALLORY
MARK TIME
MASTER
MAUREY
MICROFLAME
MICRONTA
J. W. MILLER
MOODY
MORRIS
MUELLER
MURA

NATIONAL ELECTRONICS
NATIONAL TEL-TRONICS
NEWMAN
NORTRONICS
NUCLEAR SYSTEMS
NUCLEONIC
NU-WAY
NYTRONICS

OK TOOL ORYX/TELVAC

PLC
PAMOTOR
PACIFIC PLANTRONICS
PIKE
PLASTIC CAPACITORS
POLAROID
POMONA
POTTER & BRUMFIELD
POWER INSTRUMENTS
POWER PHYSICS

p

RAACO
RADIO SHACK
RAYTHEON
RBM CONTROLS
RCA
REALISTIC
REEVELEC
RICHCO
ROBERTSHAW
ROBINS
ROCKWELL
ROXTER
RUSSEL
RUSTRAK

SAGE SAMS, HOWARD W. SARKES-TARZIAN SCOTCH SCOTT SENCORE SETH THOMAS SHURE SHURE

SIGMA

SIMPSON
H. H. SMITH
SOLA ELECTRIC
SOLAR SYSTEMS
SOUNDOLIER
SPECTRA-STRIP
SPECTRONICS
SPRAGUE
STACKPOLE
STACKPOLE
STACKPOLE
STANCOR
STRUTHERS—DUNN
SUPEREX
SUPERIOR
SWING-A-LITE
SWITCHCRAFT
SYLVANIA

TANDY WIRE & CABLE
TCG BOOKS
TRW CAPS
TRW CONNECTORS
TRW POTS
TRW RESISTORS
TRW TRANSFORMERS
TAB
TAPESWITCH
T-BAR
TECHNIQUES
TELEPRO
TELEX
THERMALLOY
THERMOSEN
TRIAD
TRIPLETT
TRIPP-LITE

UTC UNGAR UNIMAT UNIVERSITY USECO UTAH UTICA

VACO VARIAN VARO VECTOR VICTOREEN VIGOR VLCHEK

WAHL
WAKEFIELD
WANLASS
WASSCO
WAYNCO
WELLER
WHEELER
WHEELER
WILTON
WOOD

X-ACTO XCELITE

YELLOW SPRINGS

22

E

PRODUCT INDEX

A	Chassis Slides293	Magnetic146	Contact Spatulas217
AO Matau Land Matau	Desk Top292	Manual Reset147	Contactless Controllers255
AC Motor Load Meters255	Drawers292	Thermal146, 147	Counter, Hand Tally229
AC Tester	Handles293, 301	Circuit Monitor170	Counters (See Timers)
Adhesive	Hardware293, 297	Circuit Tester Light261	Crimping Tools
Alignment Tools	Inclined Panel292	Cleaner, Ultrasonic318	CRT Tester276
Ammeters263, 265, 266	Meter Cases297	Clips	Current Leakage Tester266
Amplifiers	Racks292, 293, 296		Cutters309, 310
	Rack Panels	Alligator191, 326	
Booster	Relay Racks	Assorted191	D
Microphone Mixer329	Slides	Battery250	
Public Address	Sloping Panel 292, 295-297	Cable	Decade Boxes
Stereo Mixer330	Small Cabinets &	Spring300	Dial Plates, Switches 141, 289
Telephone326, 344	Cases294, 314-316	Coils (See Chokes &	Dials, Turns Counting107, 108
Antiones Condo	Upright292, 293, 296	Inductors)	Dies
Appliance Cords	Utility	Coil Winder230	5.00
Attenuators 102	Cable (See Wire & Cable)	Color Bar Generator267	Diodes
Audio Generator	Cable Accessories	Commentary	(See Also Discrete Devices
Audio & Hobby Index319	(See Wire & Cable	Connectors	Directory, pp. 8-15)
Auto Timing Controls224	Accessories)	Index162	Bridge
	Calculators322	AC170, 184	
В	Cans, Plug-In88	Adapters185, 191, 193, 261	General Purpose38, 39, 44
	Capacitance Testers266, 276	Audio183-185	LED's
Baffles333-335		BNC182	
Batteries	Capacitors	Banana190	Silicon Controlled Rectifiers42-44
Battery Chargers 247, 250	Index110	Barrier Terminal	
Battery Eliminators247	Aluminum113, 119-123	Blocks	Zener
Battery Testers	Assortment113	Binding Posts189-191	Discrete Devices
Bell Timer	Ceramic	Brackets62	
Bench Work316	Computer Grade 124, 125	Cable155, 172, 176	Cross Reference5
Binding Posts 189-191	Electrolytic113, 119-125	Card54	Directory8
Blades311	Film:116, 117	Chassis88, 171, 172, 176	Drafting Aids
Diagos	Filter	Coaxial180-182	Drills
Boards	Glass116	Contacts	Drill Bits311-313
	Ulink Walterna : 310 110: 100	Dust Cons 166	Dry Transfer Lettering60
(See Also PC & IC)	High voitage112, 116, 128	Dust Caps	
(See Also PC & IC) Integrated Circuit 52 55 57	High Voltage 112, 116, 128 Low Voltage	Environmentally	
Integrated Circuit52, 55, 57			E
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64	Low Voltage111	Environmentally	E
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal	Low Voltage	Environmentally Sealed162, 167	
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299	Low Voltage	Environmentally Sealed	Edge Card Light69
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal	Low Voltage	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes	Low Voltage	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128	Environmentally	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315	Low Voltage	Environmentally	Edge Card Light 69 Emergency Lights 317, 318 Engraver, Electric 308, 312 Epoxy Compound 51 Epoxy Glue 65 Extension Cords 148, 344
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117	Environmentally	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115	Environmentally	Edge Card Light 69 Emergency Lights 317, 318 Engraver, Electric 308, 312 Epoxy Compound 51 Epoxy Glue 65 Extension Cords 148, 344
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights)	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113	Environmentally	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127	Environmentally	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118	Environmentally Sealed	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Mylar 114, 117 Polyester 114, 117 Polyester 114, 117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273	Environmentally Sealed	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Mylar 114, 117 Polyester 114, 117 Polyester 114, 117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276	Environmentally Sealed	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Mylar 114, 117 Polyester 114, 117 Polyester 114, 117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298 Burnishers 217 Bushings 298, 300 Bus Strips 57 Buzzers 207, 320, 321	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345	Environmentally Sealed	Edge Card Light
Integrated Circuit52, 55, 57 Printed Circuit52, 56, 58, 64 Terminal	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298 Burnishers 217 Bushings 298, 300 Bus Strips 57 Buzzers 207, 320, 321	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298 Burnishers 217 Bushings 298, 300 Bus Strips 57 Buzzers 207, 320, 321 C CB Transceivers 331, 339	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers &	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298 Burnishers 217 Bushings 298, 300 Bus Strips 57 Buzzers 207, 320, 321 C CB Transceivers 331, 339 CB Two-Way Radio 339	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches	Environmentally Sealed	Edge Card Light
Integrated Circuit 52, 55, 57 Printed Circuit 52, 56, 58, 64 Terminal 188 Bolts, Spade 299 Books 227, 346, 347 Boxes Black 52 Perforated 64 Plastic 314, 315 Bridge Assemblies 44 Bulbs (See Lamps & Lights) Bumpers 298 Burnishers 217 Bushings 298, 300 Bus Strips 57 Buzzers 207, 320, 321 C CB Transceivers 331, 339	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers &	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66 Chokes (See Also Inductors) Filter 237, 238	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polyester 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polyester 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66 Chokes (See Also Inductors) Filter 237, 238 Hash 230, 231 RF 230, 231	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polyester 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66 Chokes (See Also Inductors) Filter 237, 238 Hash 230, 231	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polystyrene 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66 Chokes (See Also Inductors) Filter 237, 238 Hash 230, 231 RF 230, 231 Circuit Assemblies 39	Environmentally Sealed	Edge Card Light
Integrated Circuit	Low Voltage 111 Metalized 116, 117 Mica 113 Miniature 111, 119, 120 Monolithic 111, 113 Mounting Hardware 128 Motor Run 128 Motor Start 116, 128 Mylar 114-117 Polyester 114-117 Polyester 115 Silver Mica 113 Tantalum 126, 127 Trimmer 118 Variable 118 Capacitor Analyzer 276 Capacitor Tester 273 Captive Hardware 300 Cart, Service 316 Cassettes 344, 345 Cements 65 Chart Recorders 277 Chassis Drivers & Punches 311 Chemicals 65, 66 Chokes (See Also Inductors) Filter 237, 238 Hash 230, 231 RF 230, 231	Environmentally Sealed	Edge Card Light

PRODUCT INDEX (Cont'd)

Rectifier144	J	Lugs	Panel Racks
Signal Indicating144		Solder299	Parts Cabinets314,
Slo-Blow	Jack Adapters	Spade Lug Adapter187, 191	Patch Cords179, 193,
Standard143-145	Jack Covers185	Terminal299	Photo Cells67
Subminiature144	Jack Panels179		Photo Layout Kit
		M	Photo Pickups
	Jacks	IVI	Photo Transistors28
G	Banana190, 192	Manufacturers List of 250	Photoelectric Relays
	Coaxial	Manufacturers, List of	Pilot Lamps (See Lamps
Gauges217		Manufacturer's Product	& Lights)
Glue	Extension 183, 186	Index355-360	Pliers309,
Grommets160, 298	Motorola Type	Marker Strips175	
	Phone & Phono184-186, 326	Megaphone, Power	Plugs
	Right Angle187	Madau	Adapter
H	Test	Meter	Banana
	Tip	(See Also Panel Meters)	Connector164,
Handles 202 201	Jigsaw313	Relays. 255, 256	Extension
Handles293, 301	Jumpers194	Shunt254	General Purpose179,
Hardware Index298		Meters, Portable228, 259,	Hole
(See Also Item Wanted)		262-267, 269-273	
Headphones &	K	Metric Converter308	Motorola Type
Headsets340, 341		Microphone Mixer	Phone & Phono183-
Heat Guns161	Kits	Microphone Stands &	191,
Heat Sinks49-51	Dry Transfer Lettering	Accessories 183, 337, 338, 377	Power
Hex Key Holder & Blade	Dry Transfer Lettering60		Printed Circuit
Set310, 311	Educational	Microphones	Right Angle
Hex Nuts299	Electronic	Microscope	Tip187,
Hex Nut Driver310	Experimenter's Chassis57	Microscope Camera275, 357	Wall
High Voltage Packs248	PC59, 60	Microwave Detector271	Posts, Aluminum
Holders, PC Board63	Photo Layout & Nameplate59	Motor Accessories287	
Housing, Plug-In188	Silk Screen60	Motor Speed Control285	Potentiometers
0. 0	Tune-Up323	Motors	Index
	Knives310, 311	Multimeters259-262,	Adjustable9
	Knobs288-291	266, 268, 271, 272	Brake
	Knob Index288	Multitesters262	Carbon
		Music Systems328	General Purpose, 100, 101,
C Tester269			Linear Motion
mpact Staking Kit188		N	Multiturn104
mpedance Bridge266		N N	Slide Actuated
	L Pads102	Nameplate Kit59	Trimmers 98, 99, 102, 104,
nductors	Label Maker & Tape318	Nuts	Power Line Monitor
(See Also Chokes)		Nut Drivers 309, 310	Power Supplies246-
General Purpose	Lamps & Lights	Hut Dilvers	
•			259, 261, 267,
Miniature	Annunciator	0	Printed Circuit
RF	CartridgeA		175
Transistor	Color Caps78	Ohmmeters	Accessories
Variable	Desk, Adjustable317	Optical Comparators60	Boards & Cards . 52, 56, 58
ndustrial & Special Purpose	General Service	Optocouplers27	Board Holders52
Tubes82, 85, 86	Hi-Intensity318	Optical Switches	Card Edge Connectors.,,,
nsertion/Extraction Tool54	Housings74	Optically Coupled Isolators28	Card Racks
nstrument Panel Hardware300	Indicators72-78	Opto Electronic Devices	Etcher
nsulation Testers276	Lenses313	Opto Electronic Relays	Kits59
nsulators51, 62	Magnifying. April 1985 1987 317	, and the state of	Patterns
	Miniature 72, 80-82	Ordering & Shipping	Plugs
ntegrated Circuits	Neon	Information	Shear
	Panel		Sockets
Directory16	Pilot	Oscilloscope Camera275, 357	Terminals
Cross Reference6, 7	Readout 73	Oscilloscopes259, 274	Vises
CMOS35		Outlet Boxes	Probes
Digital	Remover		
Linear30, 31	Sockets	P	Public Address
OPTIMOS35	Lathe		Amplifiers329
Power42	LED's 28, 29, 70, 75	Pads	
SCR's42-44	Light Control Devices		Speakers330, 332-
	Light Emitters27, 29	Printed Circuit60	Sound Columns
ntegrated Circuit Accessories	Light Sensors	Semiconductor Mounting52	Systems328-333, 335,
	Light Sensitive Devices	Paging Systems331, 326	Punches
Boards52, 55	Index67	Panel Bearing Assembly289	Pyrometers256,
Sockets53, 54, 57	Lock Switches	Panel Hardware172, 176,	
	Lockwashers299	177, 300	R
Test Clips48		Panel Meters252-255, 257	-
	Logic Probe 269		
Intercoms324-327, 331	Logic Probe		Rack Panels
ntercoms324-327, 331	Logic Probe	Panel Meter Index252	Rack Panels
Test Clips	Logic Triacs43		

PRODUCT INDEX (Cont'd)

		(
Radios 322, 331, 338, 339, 342	Screws	Miniature130, 131,	24 Hour Timers223
Readouts	Screw Extractor311	134-136, 138	Timing Circuits Handbook223
Reamers311	Scribers311	Multipole	Tool Index. 302
Receptacles164, 165, 172	Sealants66	Paddle136, 138	Tools, Power
	Security Systems319-321	Power	Torches
Rectifiers	Semiconductor Circuit	Printed Circuit134, 137, 138	Transceivers
Bridge40, 41	Analyzer 271	Pushbutton134-138	Transceivers
	Semiconductor Index5	Reed211, 216, 258	T
High Voltage	Semiconductor Mounting Pads. 52		Transformers
Power		RF Coaxial217	3- Index232
Selenium39	Shear, PC	Ribbon137, 141	Audio235, 236, 335
Silicon Controlled39, 42-44	Shelves316	Rocker:	Auto
Regulators243	With the second of the second of the	Rotary137, 139-141	Constant Voltage
	Shipping & Ordering	Seals	Control
Relays 600 person to 1900	Information 348, 349	Slide	Current (241, 242
Index	Character	Snap Action142	Current
	Shunts	Temperature. 216	Driver
Alarm219	Signal Generators259, 267,	Thumbwheel141	Filament234, 235, 237
Antenna Switching207	271-273, 278	Time	General Purpose233, 234
Coaxial216, 217	Silicones & Greases	Toggle130-134, 141	Input233, 236
Contactors	Silk Screen Kit60	10ggie130-134, 141	Intercom236
Encapsulated200, 213	Snaps & Studs300		Interstage233, 236
General Purpose.	Socket Set313	T 16 6 7 16 7	Isolation241, 242
199-204, 221	Socket Adapters		Line to Voice Coil236, 333
Handbooks346, 347	Socket Strip	Table, Mobile Test316	Matching235, 237
Impulse207, 208	300ket 3trip53	Tachometer258, 321	Microphone 227
		Tap Set311	Microphone
Intermittent Duty208	Sockets	Tape Equipment,	Oscilloscope237, 239
Latching207, 208	Adapter		Output233, 236, 239
Meter	Breadboard88	Automatic	PC Instrument
Mercury Plunger	CRT 88	Tape Heads	Plate 237, 239, 240
Multipole		Tape Recorders	Power 230, 231, 233,
Miniature205, 207, 209	Capacitor 128	Tape, Recording &	237, 239-241
Null Sensing219	IC53, 54, 57	Accessories 344-346	237, 239-241 Pulse 233
Open200, 204	Lamp. 127. 12. 12. 12. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	Telephone Products178, 326,	Rectifier 22 237, 239, 240
Photo71	Printed Circuit56	327, 331	Step-Down & Step-Up. 241, 242
Plate Circuit	Relay218	Telephone Accessories179,	Transceiver236
Power94, 204-206, 214	SCR53	326, 327, 344	Transistor233, 234
	Shell88	Television Analyst259	Tube Checker
Reed	Test53, 88	Temperature Controls &	
Sensitive	Transistor	Testers	Variable242, 243, 245
Set Point	Tube	Terminal Blocks 174, 179	Transistor Slide Rule37
Sockets 218	Soldering Equipment 302-308,	Terminal Boards	Transistor Testers 268, 269,
Special Purpose204, 208	322		271-274
Stepping208		Accessories	
Switching	Solenoids & Solenoid	Terminal Strips	Transistors
Thermal208	Switches	Terminal Turrets88	Core Driver36
Time Delay219-221	Sonic Beam System321	To the second se	
Tools217	Sound Level Meter266, 272	Terminals	General Purpose36, 37
Voltage38, 44	Sound Systems338	Solder175, 188	High Speed
Resistance Decades276	Spacers300	Solderless57, 173, 188	Kit37
resistance becaues,	Speakers330, 332-335	Tools	Power
Resistors	Speaker Enclosure335	Temperature Controllers278	Small Signal36
	Standoffs 62	Test Equipment Index258	Triacs. P.A. J. Lebert J. Stephen et 43
Index89	Storage Cabinets314-316		Trimmers (See Potentiometers)
Assortments91	Stroboscopes258, 259	Test Leads 48, 193, 194, 326	Tube Bases
Bin Labels	Substitution Box	Test Probes 260, 269, 270, 274	Tube Manuals
Carbon		Test Prods. 11	Tube Shields
Metal Film90	Swaging Machine & Tools188	Test Table	Tube Sockets
	227 N . 61 327 E	Thermal Compound	Tube Testers 273
Metal Glaze	Switches	Thermocouples256	Tube resters
Network103	Index	Thermistors	Technic
Power92-94	Band	Thermometers272	Tubes
Variable93, 94, 98	Box		Index82
Wirewound89, 93, 94		Timers	Industrial & Special
Rheostats95, 103	DIL Setup		Purpose82, 85, 86
Riveter309	Dry Circuit	Index222	Readout
Rods, Threaded300	Environmate142	Bell223	Receiving
Art	Foot:	Cam & Cycle 222, 224;	
	Hardware132, 134	226, 227, 265	Vidicons86
S	Hesitation132	Counters229	Tubing
	Illuminated	Delay, Interval &	Tubing
SCR Power Controls239	Lever130, 138, 139	Cycle222, 224, 225	General Purpose158, 159
Saws313	Lock137	Elapsed Time228	Shrinkable158, 159
Scissors	Magnetic	Stopwatches	Tune-Up Kits323
Screwdrivers309, 310	Mat	Time Switches	Tweezers310

PRODUCT INDEX (Cont'd)

U	Warning Devices	
Ultrasonic Cleaners	Window Foil	
	Wire & Cable	Power
Varnish	Index 148 Aircraft 150 Appliance Cord 148 Audio 152, 153, 184 Braided 151, 154 Broadcast 153 Coaxial 149, 160 Computer 150 Communications 153, 154 Control 153	Service Cable
W	Data	Video149
Walkie-Talkies339 Wafers, Semiconductor	Hi-Fi	Wiring & Cable Accessories
	Hook-Up150, 154	Cable Clamps

Cable Clamp Holders		298
Cable Clips	155,	160
Cable Connectors	172,	176
Cable Harness		154
Ducts		160
Harness		
Heat Shrinkable		
Tubing	158,	159
Lacing Cord		154
. Plugs		172
* Ties	152,	155
Tools 154, 155,	160,	161
Tubular Braid		151
Wire Strippers308,	309,	321
Work Bench	• • 9500 •	316
Wrenches		77
a abs . Z		
_		

Zener Diodes......38, 44

NOTE: Also see these section indexes: Semiconductors, 5; Light Devices, 67; Tubes, 82; Resistors, 89; Potentiometers, 96; Capacitors, 110; Switches, 130; Wire and Cable, 148; Connectors, 162; Relays, 195; Timers, 222; Transformers, 232; Panel Meters, 252; Test Equipment, 258; Knobs, 288; Tools, 302; Audio and Hobby, 319.

Across-the-Nation Facilities to Serve You Better-

- * MAJOR STOCKING AREAS
 - Garden Grove, Calif. Fort Worth, Tex. Elgin. III.
- SALES BRANCH WITH INVENTORY
 - Boston, Mass.
- ALLIED ELECTRONICS ASSOCIATE DISTRIBUTORS

• Davenport, Ia. • Boise, Ida. • Salt Lake City, Ut.

- ★ GARDEN GROVE, CALIFORNIA 12311 Industry Street Garden Grove California 92641 (213) 598-8671, (714) 894-7581 TELEX: 68-5534, 65-5465
- ★ ELGIN, ILLINOIS (Chicago Area) 1355 Sleepy Hollow Road Elgin, Illinois 60120 (312) 697-8200 TELEX: 72-2465, 72-2466
- BOSTON, MASS.
 One Century Circle
 Campanelli Industrial Park
 Braintree, Mass. 02184
 (617) 848-4150
 TELEX: 94-0650
- ★ FORT WORTH, TEXAS 401 E. 8th Street Fort Worth, Texas 76102 (817) 336-5401 TELEX: 75-8314

- BOISE, IDAHO
 Kimball Electronics
 418 N. Orchard Ave.
 Boise, Idaho 83704
 (208) 342-3559
- DAVENPORT, IOWA TCR Distributors 1205 East River Drive Davenport, Iowa 52802 (319) 323-8051
- SALT LAKE CITY, UTAH
 Kimball Electronics
 350 Pierpont Avenue
 Salt Lake City, Utah 84101
 (801) 328-2075

INDEX TO MANUFACTURERS

			50.4
A	Lamps, Panel	Transceiver	Ribbon
ADC . To by the large to the la	Locking Terminal Lugs299	Tube Checker	Dust Caps
	Machine Screws	Variable	Fans
Jack Panels 179 Patch Cords 179	Metric Converter308	Tubes	Key Telephone Systems178
Plugs179	Mobile Test Table316	Receiving	MS Insert Arrangements163
Terminal Blocks	Multi Drawer Utility	Special Purpose 82, 85, 86	MS Receptacles and
Terrimai blocks	Cabinets314	Tubing	Mating Plugs164, 165
ADMIRAL CONTROLS	Multitesters	Tweezers310	Potentiometers
Adloc Binding Posts189	Nutdrivers	Washers	Panel Receptacles172
Adioc Billding Posts189	Nuts299		Plugs and Sockets172
AIPHONE TO BE LONG TO BE	Outlet Boxes	ALPHA 3 M. A.A.	Relays, Coaxial216
Talla Barala Barriana Susatarra 206	Panel Meters253, 257		Right Angle Plugs
Talk Back Paging System326	Printed Circuit Board	Audio Cable	Sockets
AVDO MUS	Holders and Vises63	Cable, Shielded153, 154	Dual In Line IC54
AKRO-MILS	Phone and Phono Plugs186	Cable, Unshielded	Relay218
Multi-Drawer Parts Storage	Pliers309, 310	Communications Cable 1154	38 SCR
Cabinets	Posts, Aluminum300	Control Cable	Socket Shell
ALCO TELEVISION DE LA CONTRACTOR DE LA C	Power Cords	Data Cable	Tube87
	Receiving Tubes	Extension Cords	Telephone Bi-Connector
Knobs, Aluminum & Plastic 289	Relays	Heat Guns 161	Assemblies179
Switches	General Purpose 196, 199	Hookup Wire	Telephone Products178
Pushbutton136	Reed210	Hot Air Pencil	Telephone Running Cables, 179
PC Slide	Resistor Cabinet Labels91	Intercom Cable	Ten-turn Pots &
Reed Key211	Resistors, Carbon Film89	Multi-Conductor Cable152	Micropots
Toggle, Miniature131	Right Angle Meter Plugs192	Microphone Cable	Tools
Toggle, Waterproof131	Rods, Threaded Brass and	Nylon Flat Braided Wrap154	Trimmer Potentiometers 98, 104
ALLIED Particle to the No.	Nylon.,300	Power Cords148, 151	Tube Sockets87
ALLIED AND ANTHONY OF THE PARTY	Screwdrivers309	Plastic Jacketed Cables 154	
AC Adapter Coaxial Jacks186	Screws, Machine	Shrinkable Tubing158, 159	AMPROBE
Autotransformer	Shrinkable Tubing 158, 159	Teflon Cables	Clamp-on Tester
Step Down242	Sockets, Relay218	Telephone Station Cable152	
Step Up242	Solder307	Test Prod Wire	Thermometers 272 Voltage Tester 269
Aluminum Posts300	Solder Lugs	Tubing	Voltage Tester209
Banana Plugs & Jacks,	Soldering Equipment304	4 m (may yer) yer?) all at t	
Insulated and Non-	Spacer Bushings, Nylon298	The state of the same of the same	ANTEX
Insulated192	Spacers—Brass, Fiber and	AMERICAN BEAUTY	Soldering Equipment302
Batteries	Aluminum300	Soldering Equipment304	
Battery Charger250	Spade Bolts	3 7 7	API
Battery Clips250	Spade Lug Adapters	AMERICAN DRYER	API
Binding Posts189	Speakers	AMERICAN DRIER	Meter Relay Alarm256
Bumpers289	Special Purpose Tubes82, 85, 86	Emergency Lights318	Meter Relay Controllers256
Buzzer, AC207	Switches and the American	THE STREET, A. S. C. S. C. C.	Pyrometers
Cabinets, Utility314	Foot	AMGLO	A MESSE S
Cable Clamp Holders298	Lever 138	Flacktubes 242	ARCO
Cable Clips155	Mat	Flashtubes	Capacitors
Capacitors	Ribbon 137	Engineering Manual343 Accessories343	Ceramic
Air Variable118	Rocker 138	Me As Talk Mark Mark Mark Mark	Electrolytic 119
Ceramic110	Sealed Environmate Magnet		Mica
Miniature Aluminum	Activated Inert Gas	AMPEREX	Mylar
Electrolytics119	Filled	Special Purpose Tubes 85, 86	Padders 118
Mylar114	Subminiature130, 138	and the second of the second o	Trimmers118
Cassettes345	Toggle130	AMPERITE	
Chart Recorders277	Tape, Recording	AMPERITE	ARCHER (also see Radio Shack)
Clips, Spring300	Terminal Lugs	Thermal Relays208	Wire and Cable Tools161
Counters, Reset	Test Jack187		viile diffe dable 10013101
Connectors, Environmate	Threaded Rods300	AMPHENOL	
Waterproof, Explosion-	Timing Circuits Handbook227	St. St. A. C. C. C. C.	ARGOS
proof162	Tip Jacks & Plugs	Cable Clamps and Boots166	Lectern Sound System
Cutters	Transformers	Connectors	Public Address Systems 338
Cutting Pliers 309, 310	Audio236	AC	•
Engravers, Electric 308	Driver	Audio	ARROW-HART
Extension Cords	Filament 234	Blue Ribbon	
Extension Plugs & Jacks186 Filter Chokes238	Input	Cable & Chassis 88, 172, 176	Adapt-A-Switch135, 137
Fuses	Intercom236	Coaxial	Lock Swtiches
Instrument143	Interstage	Microphone	Power Switches
Slow Blow	Isolation	Miniature	Pushbutton Switches . 135, 136
Grommets	Line to Voice Coil	Miniature Environmental. 167	Toggle Switches 130, 131
Headphones 340	Output233, 236	Multi-Purpose	
Hex Nuts	Power233, 239, 240	PC Card Edge	ATLAS
Hole Plugs	Printed Circuit	PC Plugs and Connectors. 168	Mike Stands and
Industrial Tubes	Instrument252	Polarized	Accessories338
Industrial Tubes	Dootifier 230 240	Pack and Panel 176 177	PA Horne and Speakers 332

Automatic Tape Equipment .346	Carrying Cases	Subminiature	Mylar114, Polyester
	Chassis Boxes	Tube	Relays,
	Chassis Slides	Terminal Strips	General Purpose Time Delay
В	Desk Drawers	CIRCUIT-STIK	Resistor Decades
ELDEN	Handles293, 301		A
Cable and Wire	Meter Cases	Patterns for PC Boards	CRAMER/CONRAC
Audio153	Miniboxes	Pre-Routed GP Boards52	Elapsed Time Indicators
Broadcast	Mounting Brackets 293, 297 Rack Panels	CLAIREX	Timers, Cycle224,
Coaxial	Relay Racks292, 293		
Communications	Sloping Panel Cabinets	LED Photoconductor Isolators 70 Opto-Isolators	CROWN
High-Fidelity	292, 295-297	Photocell Lamp Modules 70	Cassette Recorder
High Voltage	Utility Cabinets 294, 297	Photocells70	Telephone Dialer/Amplifier
Hook-Up		Photochopper Cells70	Telephone
Intercom	BURGESS	Phototransistors70	Answerer/Recorder Telephone Valet
Language Lab	Batteries251	CLARK, DAVID	Telephone Valet
Microphone	Flashlights		CTS
Multi-Conductor	The Company of Artist	Amplifier, Headset	
Power Cords148, 151	BUSSMAN Life and the billion and	Headsets340	DIL Setup Switches
Retractile Microphone and Telephone Cords151	Fuse Blocks 144, 145	Sound-Power Headset 340	Rotary Switches 137,
Service Cord.	Fuse Holders	28 \$5	Slide Actuated Pots
Shielded	Fiber Tube	CLAROSTAT	Trimmers
Speaker Wire	Rectifier144	Counting Dials 112 108	Carbon
Strain Gage	Slow-Blow143	Decade Boxes276	Composition
Unshielded	Standard 143	Potentiometers	Wilewoulldgas.g
Video Cable	Signal Indicating	Commercial 100, 101, 103 Military 100, 101	CURTISS DEVELOPMENT
Extension Cords148	***	Multiturn Precision106	
& K	100 100 100 100 100 100 100 100 100 100	Resistors, Wirewound Power	Relay Socket Assemblies Terminal Blocks
	C	Adjustable	Torrinial blocks
Capacitor Analyst	CAMBION - PARIOR TOTAL	Fixed 93, 94	OUT TO HAMMED
Digital Multimeter	the same of the sa	Wirewound Controls	CUTLER HAMMER
Scope274	IC Socket Adapters54	CLAUSE	Switches
Power Supplies	Card Connector. 54	CLAUSS 2001 Colored	Dry Circuit Hesitation
RF Signal Generator259	Insertion/Extraction Tool54	Tweezers 310	Illuminated Paddle,
Sine/Square Wave Generator	Socket Strip 53	Scissors310	Pushbutton, Rocker
Television Analyst	Test Point Adapter	COLUMBIA	Lever
Transistor/FET Tester271			Military
ICHOP	CENTRALAB	Cable and Wire 153	Pushbutton and
ISHOP	Band Switches 141 Ceramic Capacitors	Control	Accessories
Drafting Aids		ීම ල Data 153	Paddle Power Rotary
Optical Comparator60	Lever Switches	Multi-Conductor 152 Service Cord 151	Power Rotary.
BOGEN	Rotary Switches and	Speaker Wire/Lamp Cord/	PC Mounting
Intercoms324	Accessories139-141	Zip Cord	Pushbutton
Paging and PA Speakers	The second of th	Test Prod	Rocker
and Drivers332	CHICAGO MINIATURE LAMP	Shielded 153	Rotary
PA Amplifiers	Lamps	Unshielded	Toggle130, 132
PA Booster Amplifiers	Miniature	Power Cords 148	Ultraminiature Toggle,
PA Mixer Amplifier	Subminiature80, 81 LED Indicators29	6 24 350 550	Lever & Pushbutton .
	TED Indicators,	CONSOLIDATED DRILL	Watertight Lever. 130,
BOURNS STANDER OF THE PROPERTY OF	CINCH CONTRACTOR CONTRACTOR	e e e e e e e e e e e e e e e e e e e	Switch and Panel Seals Switch Guards
Adjustment	CINCII	Drill Bits	Switch Hardware
Potentiometers96-98	Barrier Blocks	COAXIAL (DEADROPH)	1 1.15 V. V. V. S. 75. 32.1
Brakes, Potentiometer107	Chassis Power Plug	COAXIAL (DEARBORN)	
Multiturn Pots Application 106	AC	Coaxial Cable149	
Resistor Networks	Chassis Mounting171	concord gray (c) many (037 PON 1, D
	PC Card Edge168,169	CORCOM	
ROOKS	Polarized 172	RFI and EMI Filters	DALE
ct · · • »	Fanning Strips		
Outlet Boxes	Junction Shells	CORNELL DUBILIER	Power Resistors
UD TARREST BASE OF A PLANT	Marker Strips	Capacitor Decades	DARCO CEL
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Phono Plug and Jack Assettly 184	Capacitor Mounting	DARCO-CEI
Amplifier Foundations 295, 297	Plugs and Sockets 172	Hardware	Transistor Curve Generator
Blowers	Screw Lock Assemblies. A. 177 Sockets Cook Haz Cook	Capacitors Electrolytic	
Boxes 294	Capacitor. MA Appet NR 128	Metallized	DAVIES
	DIP/DIL IC53	Mica and Ceramic 113	Plastic Cases and Panels
Cabinet Racks292, 293, 296	CRT	mica and ocianic	Trastic Cases and Fancis

DEARBORN	Semiconductor Circuit	Thermistor Assemblies 46, 47 Thermistor Engineering	HITACHI
Bus Hookup Wire154	Analyzer	Package	Insulation Testers276
Circuit Monitor, 3-wire 170	Sine/Square Wave	Thermistor Kits	Modular Motors286
Coaxial Cable149	Generator273	111011111010111111111111111111111111111	
Extension Cords	Tube/Transistor Tester273		HONEYWELL
Hook-Up Wire	VTVM's270	G	Digital Test Quipment260
Magnet Wire	EIMAC (DIV. OF VARIAN)		MINNELL
Nylon Lacing Tape	·	GC (GENERAL CEMENT)	HUBBELL
Polyester Lacing Tape	Special Purpose Tubes85, 86	Alignment Tools307	AC Connectors 17
Power Cords		Cements65	
Speaker Wire/Lamp/Cord/	ELECTROMATION	Chemicals65	HUNTER
Zip Cord	Ultrasonic Cleaners318	Glue	PC Board Holder63
		Soldering Aids304	Solder Remover
DIALCO	ELECTRONICS CONTROLS CORP.	Varnish65	Vises63
Bulb Remover77		O.F.	
Indicator Lights 72, 73, 77, 78	SCR's	GE	HURST
Readouts	Also See Integrated Circuit and	Silicones & Greases66	Synchronous Motors285
Wrenches77	Discrete Device (Semiconductor)		Synchronous Motors285
	Directory 8-19	GENERAL CONTROLS	
DORMEYER		Counters229	
Solenoids216	ELECTRONS, INC.		
Solelloids	Special Purpose Tubes 85, 86	GENERAL TIME	
DOW KEY	Special Furpose Tubes85, 86	Elapsed Time Meters228	
DOW-KEY	FLECTROVERT	Timers	INDUSTRIAL TIMER
RF Coaxial Switches217	ELECTROVERT	Cycle222, 227	Clyde Timers226, 227
	Cable Clips	Delay Interval Cycle	Industrial Stop Clocks228
DRAKE	Cable Duct160	222, 224, 225	Instant Reset Timers224
Bulb Remover77	Grommet Strips	Solid State222	Programming Cam Timers 226
Indicator Lights. 72, 73, 75-77	Wire/Cable Accessories160	ADAMILI	Running Time Meters228
Readouts73		GRAYHILL	
Wrenches77	ELMENCO (SEE ARCO)	Wire Ties	INTERMARKET
			Ribbon and Thumbwheel
DREMEL	EPSCO	GREENLEE	Switches141
Power Tools and	Power Supplies248	Chassis Punches311	
Accessories			INTERMATIC
Engraver308		GUARDIAN	Interval Timers224, 225
	F	Relays	Light Control Devices
DUNCAN		General Purpose	Relays, Time Delay219
Counting Dials	FAIRCHILD	201, 202, 204	Time Switches
Multiturn Precision Pots106		Impulse Ratchet208	Timers223
Slide Actuated Pots109	Diodes	Intermittent Duty208	
	See Integrated Circuit and Discrete Device (Semiconductor)	Latching 208	IR (INTERNATIONAL RECTIFIER)
	Directory8-19	Sensors 220	Circuit Assemblies39
E	IC's, Digital 12 ABAY A 32-34	Special-Purpose208	Diodes, Zener38
	IC's Linear30, 31	Stepping208	Also See Integrated Circuit and
E. A.	IC's, OPTIMOS35	Time Delay220	Discrete Devices (Semiconduc-
EAGLE	Also See IC Directory p. 16-19	Sockets, Relay	tor) Directory8-19
AC Connectors	LED Displays	Solenoids	Rectifiers
Solderless Wire Connectors, 170	LED Lamps	Voltage Level Detectors220	Schottky Power
Wall Plugs170	Source/Sensor Arrays29		Selenium39
	Transistors	H	SCR's
EDELSTAL	Core Drivers36		Silicon39
Lathe and Accessories 313	General-Purpose36	HAMLIN	Transistor Application Slide Rule
	High Speed Switches36	Magnetic Proximity Switch 258	Transistor Replacement
EDSAL	Photo36	Reed Switches211	Kit37
Service Cart316	Power	Relays221	Transistors37
Storage Cabinets, Racks	Siliali Siglial	Temperature Switches 216	Voltage References and
and Shelves	FANON		Regulators38
Utility Bench	FANON	HANSEN	ITT General Con. Counters 229
Work Bench	CB Mobile Transceiver311	Synchronous Motors287	
	Intercom		
EICO	PA Amplifier	HANSON (ACE)	
Audio Generator273	Power Megaphone	Dies311	J
AC-DC Power Supplies 247	Radio Pocket Paging	Reamer	
Battery Eliminator/Charger.247	System331	Screw Extractor311	JBT
Capacitor Tester273	Telephone Intercom	Tap Awl Tool	Frequency Meters271
Decade Boxes	System331	Taps	Toggle Switches 130, 132, 134
Inverters247			
Oscilloscopes	FENWAL ELECTRONICS	HECON	JFD
ELIMBI SHITTINGS . 74/		Counters & Accessories229	Trimmers
	Thermistore 46.4/		
RF Generator273	Thermistors46, 47	00411.010 4 7.0000001100220	mmmers
			ALLIED • 357

E. F. JOHNSON	M	MOODY	PLC ELECTRONICS
Banana Jacks & Plugs 190 Binding Posts	MACHLETT LABORATORIES	Miniature Tool Sets311	Security Systems and Accessories
Miniature Coaxial		MORRIS	
Connectors182	Special-Purpose Tubes 85, 86	Coil Winder	POLAROID
Test Point Strip Handle62 Tip Jacks & Plugs190	MAGITRON		Microscope & Oscilloscope
Trimmers118		MUELLER	Camera and
Tube Sockets87	Speakers335	Assorted Clips	Accessories
Variable Capacitors	MAGNECRAFT	MURA	POMONA
ONARD	Relay Handbook346		Adapters
	Relays	AC Clamp-On Testers	Binding Post1
Burnishers	Encapsulated	N	Lug
Gauges217	General-Purpose202, 204 Mercury Plunger205	N	Phone Plug Socket
Relay Tools217	Miniature	NATIONAL ELECTRONICS INC.	Test Tube Socket
	Power205, 214	Neon Readout Tubes86	Black Boxes
K	Reed	Solderless Blocks174	Patch Cords.
N.	Time Delay221	Special-Purpose Tubes 85, 86	Plugs, Banana
CEPRO	MALLORY	NATIONAL TEL-TRONICS	Breadboard
PC Boards and Accessories58	Attenuators102	Plugs and Jacks A. A. 186	Relay
PC Kits	Batteries	Solderless Blocks	Test
Photo Layout Kits	Battery Charger		Test Lead Holders46,
Transplato Mag. 18. 18. 19. 19. 19. 19. 19.	Capacitor Mounting	NEWMAN	Test Probes
ESTER	Hardware128 Capacitors	Cable Harness and Wrap154	
Solder	Electrolytic113,		POTTER & BRUMFIELD
0.307	120, 122-125	NORTRONICS	Relays
KEYSTONE	Motor Start	Replacement Tape Heads344	Antenna Switching
Hand Punch188	Polystyrene	NIVAL PAULE	Buzzer, AC
Impact Staking Kit	Controls and	NUCLEONIC	Enclosed
Plug-In Molded Housings188	Accessories101, 102	Power Supplies249	Impulse
Terminal Boards	Dial Plates	Power Inverter/Converter249	Latching
Terminal Board Prototype Kit188	Resistors, Power	NU-WAY	Multiple Contact
Terminal Board Standoffs62	Speaker Controls, Pads. 102		Open PC Board Mtg
	Switches, Rotary141	Snaps and Studs300	Power
KINGS	Trimmers	NYTRONICS	Reed
Coaxial Connectors	wirewound Controls	Inductors 231	Sensitive
	MARKTIME		Time Delay
KURZ-KASCH	Bell Timers223	0	Relay Sockets/Covers
IC Tester	Electronic Time Switches 223	-	
Logic Probes. Superior Color 1961. 269	Wall Box Time Switches223	OK TOOL	POWER INSTRUMENTS
		Wirewrap Equipment161	Photo Pickups
11	MASTER	DDVY	Strobes
	Flame Torch Kit	ORYX	acilometer
LECTROTECH	Heat Gun161	Soldering Iron308	
VTVM Power Supply270	MALIDEY	Vacuum Tweezers	R
	MAUREY Linear Motion	THE CHIPPOT MANAGEMENT OF	- "
LEE BEE	Potentiometers105	P.	RAACO SA BAYA
Spring Clips300	otoniomotors	DAMOTOR	
	MEMCOR	PAMOTOR	Plastic Storage Boxes
LEECRAFT	Power Resistors94	Miniature Fans and Accessories281-284	RADIO SHACK
Indicator Lights74	Wirewound Rheostats95	Accessories281-284	
Sockets79	Michaelane	PANDUIT	Alarm & Security Systems
IPPELEILOE	MICROFLAME	Installation Tool	Audio/PA Systems &
LITTELFUSE	Gas Welding Torches	, , , , , , , , , , , , , , , , , , ,	Accessories
Circuit Breakers147	MICRONTA	PIKE	Speakers334, Stereo Music Systems
Fuse Blocks		Repeat Cycle Timers & Kits. 227	Stereo Music Systems Stereo Mixers
Fuses	Panel Meters		Auto Accessories
Ceramic Tube144	Digital Voltmeter	PLANTRONICS	Dwell Tachometer
Instrument143-145	FET VOM	Headsets 341	Tune-Up Kits250,
Picofuses	Multitester	DI ACTIO OLD LOIDO	Battery Charger
Standard	Signal Tracer271 Substitution Box276	PLASTIC CAPACITORS	Books
	Transistor Tester271	High Voltage Filter	Calculators
LUTRON		Capacitors	CB Equipment Transceivers
Motor Speed Controls285	J. W. MILLER	Plastic Dielectric	TV/FM Mobile Home
SCR Power Controls239	Chokes and Coils230, 231	Capacitors116	Antenna

	THE RESERVE THE PARTY OF THE PA		
Two-Way Radios339	VOM's261	Power Supply/Charger267	Test Equipment Accessories
Walkie-Talkies339	VTVM270	Substitution Box267	Binding Posts189
Chemicals, Cleaners65	Tubes	Tube & Transistor	Dual Instrument
Connecting Hardware	Digital Readout86	Tester268, 273	Adapters
AC/DC Adapter261	Receiving83, 84		Jumpers
Alligator Clips326	Special-Purpose85, 86	SETH THOMAS	Leads & Prods194
Audio Connecting Cables 184	Vidicon's		Patch Cords
Extension Cord344	Tube Manual84	Wall Clock	Right Angle Meter
Phone Plugs	WY AT RESIDENCE		Plugs192
Counter, Hand Tally	TABLE OF THE OWNER, NAMED IN	SHURE	Shorting Bar Adapter 191
	REEVELEC	SHUKE	Shorting bar Adapter 191
Intercoms 327	Microwave Detector 271	Microphones337	
Label Maker & Tape318	micromate Beteeter	Mike Transformers337	SOLA ELECTRIC
Microphones	0.05980		0
Mike Accessories 337, 338	RICHCO		Constant Voltage
Microscope Kit321	Circuit Board Supports62	SIGMA	Transformers244
Panel Meters257	Hex PVC Spacer Standoffs 62	Photogolou Systems 71	Control Transformers 241
PC Board & Accessories64	PC Component Clips62	Photorelay Systems	Power Supplies249
Perforated Boxes & Boards64	Plastic Cable Ties155	Relays	
Public Address	Flastic Cable Hes	General-Purpose202, 203	SOLAR SYSTEMS
Systems328, 330		Plate Circuit209	
Radio Equipment	ROBERTSHAW	Power205	Fault Indicator
Headset Radios338	Span Action Switch 1/2	Reed212	Gallium Arsenide Phosphide
Monitors330	Snap Action Switch142	Sensitive209	Lamp Assembly69
Radios322, 342, 343		SPDT204	Light Sensitive Devices67, 68
Recorders, Cassette342	ROBINS	Relay Sockets218	Optical Switches69
	Audio and Video Torre		Photo Bridge
Science Fair Kits322, 323	Audio and Video Tape		Photocells
Soldering 304 306	Accessories346	SIMPSON	Photocell Lamp Modules 68
Equipment304-306		AC Motor Load Motors	Photo Voltaic Cells67, 68
Stopwatches	ROCKWELL	AC Motor Load Meters 255	Silicon Solar Cell Power
Tape & Accessories344		Ammeter (AC)265, 266	
Telephone	Power Tools313	Current Transformers255	Module67
Accessories 326, 327, 344		Chart Recorders	
Test Equipment & Accessories	ROXTER	Digital Panel Meters252	SOUNDOLIER
AC/DC Circuit Tester	11 to 1 t	Frequency Counters258	
Light261	High Intensity Lamps318	Illumination Level Meter272	Baffles
Battery Tester261		Impedance Bridge266	Power Supplies
Multitesters261, 262	RUSSELL	Meter Relays255	
Power Supplies261	Bumpers.	Oscilloscope	SPECTRA-STRIP
RC Decade Box276		Panel Meters 254, 255	
Signal Generator	Rubber Grommets 298	Photo Tachometer258	IC Connectors
Signal Tracer	Dry Transfer Lettering60	Portable Meters271	Ribbon Cable
Sound Level Meter272	Extruded Caterpillar	Pyrometers 256, 272	Twist Cable
Test Leads	Grommets298	Shunts	
Timers		Thermocouples	CRECTRONICS
	RUSTRAK	VOM's	SPECTRONICS
Tools		VOM's Digital	Light Emitters
Electric Engraving Pencil 312	Chart Recorders		Light Sensors
Pliers		VOM's FET	Optocouplers27
Wire and Cable 161, 309		VTVM	Optoelectronic Devices 27
Socket Set313	And the state of t		Sprodott Sille Devices2/
Transformers335	S	Personal State of the State of	2000年11年2
		SMITH, H. H.	SPRAGUE
RAYTHEON	SAGE WORLD bergrand for a cold	Hardware	Capacitor Analyzer
	Power Resistors92	Assorted299	Capacitor Assortment113
Captive Hardware300	Tower Resistors	Cable Clamp Holder 298	Capacitors
Circuit Boards Mounting		Ceramic Standoff	Ceramic
Brackets62	SAMS	Insulators62	
Knobs290, 291	Books346		Film
Receiving Tubes83, 84		Flexible Shafts289	Electrolytic 122, 124, 125
Special-Purpose Tubes 85, 86	10 Bourd & Accessories 155	Grommets & Bumpers 298	Metallized Paper116
Switches	SARKES-TARZIAN	Handles301	Motor Start128
Miniature Lever, Push-	Avalanche Silicon Rectifiers 44	Hole Plugs298	Transformers233
button & Rocker138	SCR's	Mica Insulating	Transistors37
Pushbutton136, 138		Wafers51	Also See Integrated Circuit and
Reed211	Zener's	Panel Bearing	Discrete Devices (Semiconduc-
	Also See Integrated Circuit and	Assembly289	tor) Directory8-19
Toggle131	Discrete Device (Semiconductor)	PC Card Racks63	The state of the s
AND THE RESERVE OF THE PARTY OF	Directory8-19	Rods, Posts, Spacers300	STACKPOLE
RBM CONTROLS		Shaft Fillings289	
Relays	SCOTCH	Spade Lug Adapters 187	Carbon Resistors89
General Purpose 203, 204		Spring Clips	
Power204, 206	Tape and Tape Accessories.344	Terminal Strips174	STACO
1 0001204, 200		Plugs and Jacks	
	SCOTT	Banana192	Variable Transformers243
RCA		Motorola Type184	
Test Fauinment	Sound Level Meter272		STANCOR
Test Equipment		Phone 184	Transformans
Power Line Monitor269	SENCORE	Phono	Transformers
Power Supplies247		Test	Audio236
Sine/Square Wave	Audio/Stereo Analyzer267	Tip187	Filament235, 237
	Color Bar Generator267	Sockets IC53	Power237
Generator273		10	
Generator273 Substitution Box276	Multitesters268		Special-Purpose237, 241
Generator273	Multitesters	Transistor	Special-Purpose 237, 241 Filter Chokes
Generator273 Substitution Box276	Multitesters		Filter Chokes
Generator273 Substitution Box276	Oscilloscopes		

STRUTHERS-DUNN	TECHNIQUES	UNGAR	We was the way of the West of
Relays	PC Supplies60	Soldering Equipment305-307	Chemicals Clostical Country
Alarm	Silk Screen Kit60	Digital Readout 86	Uninecting Hondware co. JHAW
Contactors	TELEDRO	UNIMAT	Portable Soldering Iron304
Null Sensing	TELEPRO EAMONT HYSE	Lathe & Accessories313	And of Connection Colors The
Power	Auto Tape Cartridges 344	Tube Manual 84	WAKEFIELD ENGINEERING
Reed	TELEX	UNIVERSITY	Heat Sinks51
Time Delay		PA Amplifiers	Insulators/Washers51 Thermal Compounds51
Relay Sockets218	Headphones, Headsets340	Speakers	Page Manager Manager Manager
SUPEREX STEETON STREET	THERMALLOY	USECO	WANLASS
Headsets340	Heat Sinks and	Hardware300	AC/DC Regulators
Tape Accessories 344	Accessories49-51	Handles 301 Knobs 289	Power Supplies
Maistrack 2)/	IC Sockets	Knobs	PE Soard & Accessories, on
SUPERIOR SM3TEVE RAJOS	Mounting, Lead Conversion	Terminal Boards188	WASSCO
Binding Posts189	and IC Pads	Terminals188	Resistance Soldering
Motors 287	PC Accessories	UTAH	Devices303
Variable Transformers 245	Sensibud		Monitore
Light Sensitive Devices . 67, 68	THERMOSEN, INC.	Speakers	WAYNCO
SWITCHCRAFT Sabind of order	Special-Purpose Tubes85, 86	Voice Coil	Digital Temperature Panel
Connectors Audio Adapters185	SHEEDIN	Accessories	Meters252
Audio Connectors183	TRIAD	UTICA	Temperature Controllers and Sensors
Audio Connecting	Circuit Cards	Hand Tools309, 310	4.8
Cables	IC DIL Boards		Telephone
Jack Adapters185	Audio	HORIZON V	WELLER AGE gendesand
Mike	Filament234, 235	News and Van and RETROR	Soldering Equipment 303, 304
Right Angle	Power	VACO squad valentini stgiff	tag
Phono	Special urpose203, 241	Connectors173	WHEELER
Switchable Cord Plugs, 183	TRIPLETT	Crimping Tools	Sound Power Intercoms324
Hardware Jack Covers	Power Inverters247	Solderless Terminals	of Control Rose Rose Con
Switches	Probes270	Voltage Testers309	WILTON TO THE TOTAL BETTER
Box	Sound Level Meter		PC Board Holders63
Multi139	VOM's, FET	VARIAN	Vises63, 311
Pushbutton136	VTVM270, 278	Special-Purpose Tubes85, 86	532 penultive automorphism
Cord	VOM's Digital 259	VARO	WOOD Commercial Commercial
Slide	TRW	VARO	Circuit Breakers 146, 147
Optoelectronic Devices Later 37	Mylar Capacitors115, 116	Bridge and Avalanche Rectifiers40, 41	Wro and Cubin 161 309
SYLVANIA	Multiturn Dials	High Voltage and High	Treater will all and a second
Lamps & Accessories	Resistor Assortment	Current Rectifiers40	Photo Pinsum 256
Annunciator 78	Resistors	Also See Integrated Circuit and Discrete Device (Semiconductor)	SHOPE X HOSHIYAN
Cartridge	Carbon	Directory 8-19	Capitive Hardware. 300
Pilot78	Power	Souther Marie Street	Circuit Boards Mounting OTOAC
Subminiature	Precision	VECTOR	Knives, Blades, Sets311
Receiving Tubes	Wirewound 89 Trimmers 99	Circuit Card Modules63	Hecalving Tubes 83, 84
Molor Start half roloM	105 cheralemeters colbred in 5	IC Boards & Accessories 55 PC Boards & Accessories . 56, 57	XCELITE PROPOS TUDOS faces &
CESSION Characteristics	Hole Plugs. 298	PC Cases	Tool Sets308, 310
Also See Integrated Charge and	Wice Insu U ng roungs	PC Kits60	button & Rockey 138
	Panel Searing	Plugboards	Pushbutton vol. 189, 189, 189, 189, 189, 189, 189, 189,
TAB	UTC/TRW	Terminal Turrets88	Teste Wincourty offers
Books347	Transformers Audio 235	Test Adapter Kit	STREET, STREET, STREET,
	General-Purpose 233, 234	Tube Socket Adapters88	VEL (VELLOW SERINGS
Official Stone Representation of \$42	Power	VICTOREEN INSTRUMENT	YSI (YELLOW SPRINGS INSTRUMENTS)
Multipole Switches	Special-Purpose 235, 241 Transistor Inductors 238	Special-Purpose Tubes85, 86	Thermistors45
SAS premioranent eldnineV			-Andrews - Andrews - Andre
		PLANTINGS TROS	Mary Tocharacter Spa
STANCOS POPULATE			Invincing 7 to 7

PRINTING AND TYPOGRAPHICAL PRICING ERRORS

We are not responsible for printing and typographical errors of both specifications and prices incurred during

the printing of this catalog. We always ship at the lowest price in effect at the time your order is received.

Why pay over \$50000 for an Oscilloscope Camera?



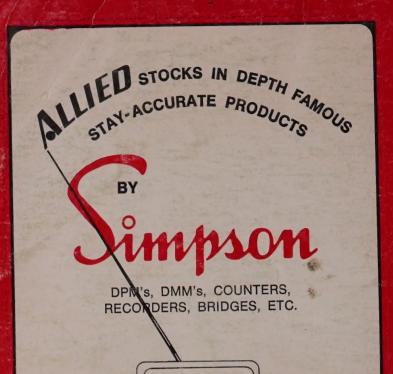
The CR-9 is a unique, low-cost camera specifically designed by Polaroid for oscilloscope trace recording. It delivers fully developed, high contrast prints of oscilloscope displays in just 15 seconds. Hand-held, weighing less than 24 ounces, it can be carried from one oscilloscope to another without interrupting work or dismantling equipment. This camera requires no focusing. The hood automatically centers and positions camera at the correct distance from the display. Shutter speed and lens opening can be easily adjusted according to the type of display. The 1:0.85 reduction ratio permits recording an entire 8x10cm format within the print area. Eight interchangeable, light-tight hoods are available to fit almost any oscilloscope with 6x8, 6x10 and 8x10cm graticules. Uses Polaroid Type 107 black-and-white film (3000 ASA equivalent speed) for eight 3½"xx4"" prints. Lens is 70mm f/5.6, stops down to f/45. Relative apertures: f/5.6, 8, 11, 16, 22, 32 and 45. Fixed focus.
561-3301. 1-24. Each 149.95 25-49. Each 134.95 50-Up. Each 127.95
POLAROID TYPE 107 LAND FILM. Black-and-white film for oscilloscope camera.
561-3107. 1-49. Each 3.59
DEVELOPER TIMER. Audible-toner timer for use with oscilloscope camera. Shgg. wt. 4 oz.
561-3126. Each 3.59

LIGHT-TIGHT HOODS FOR OSCILLOSCOPE CAMERA

Attaches easily to front of lens, permitting only the light from the cathode ray tube to reach the film. See hood information at left. Hoods may be mixed for quantity pricing.

Stock No.	Type	Stock No.	Type	Stock No.	Type
561-3306 561-3309 561-3310	Type 33-06 Type 33-09 Type 33-10	561-3311 561-3312 561-3315	Type 33-11 Type 33-12 Type 33-15	561-3316 561-3318	Type 33-16 Type 33-18

Prices for above hoods, 1-24.....Each 24.95 25-49.....Each 22.45 50-Up.....Each 19.95





MODEL 460

6 Ranges. Page 259

MODEL 360 DIGITAL MULTIMETER, Page 259



SERIES 260° VOM's. Page 264



SOUND LEVEL GEAR. OSHA Stds. Page 272



EDGEWISE PANEL METERS. Page 255





CONTROLLERS
PYROMETERS
Page 256



SOLID-STATE VOMS, Page 267

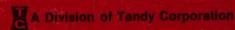


"WIDE-VUE" METERS, Pg. 254



ILLUMINATION LEVEL METER. Page 272

ALLIED ELECTRONICS CORPORATION



ALLIED FACILITIES AND ASSOCIATE DISTRIBUTORS*

GARDEN GROVE, CALIFORNIA (213) 598-8671, (714) 894-7581

> BOISE, IDAHO* (208) 342-3559

POCATELLO, IDAHO* (208) 232-2201

ELGIN, ILLINOIS (CHICAGO AREA) (312) 697-8200 DAVENPORT, IOWA* (319) 323-8051

BOSTON, MASSACHUSETTS (617) 848-4150

> FORT WORTH, TEXAS (817) 336-5401

SALT LAKE CITY, UTAH* (801) 328-2075

ALLIED ELECTRONICS CORPORATION A division of tandy corporation

401 E. 8th Street Fort Worth, Texas 76102

ADDRESS CORRECTION REQUESTED

BULK RATE U.S. Postage PAID

Allied Electronics
Corporation
A Div. of Tandy Corp

BOX 1105 LIMA OH 45802